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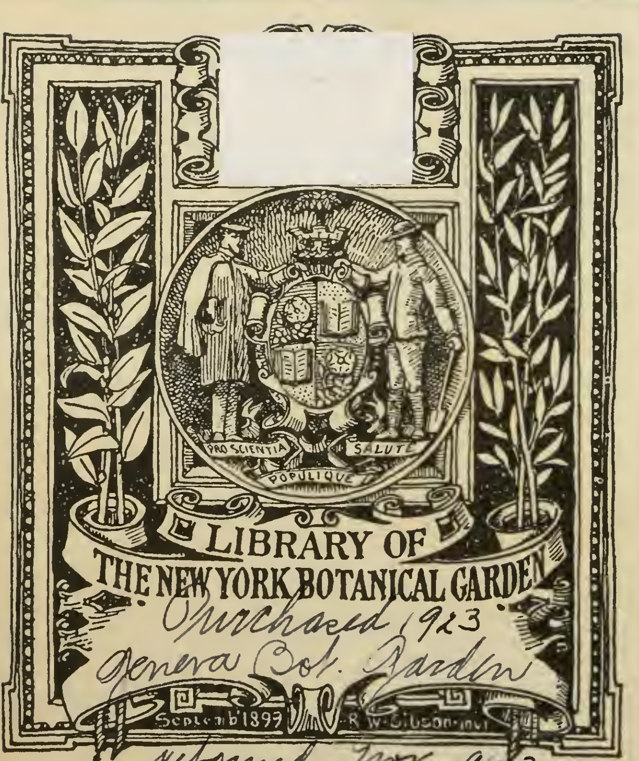
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OR,

ORNAMENTAL FLOWER-GARDEN AND SHRUBBERY:

CONSISTING OF

COLOURED FIGURES OF PLANTS AND SHRUBS,

CULTIVATED IN BRITISH GARDENS;

ACCOMPANIED BY THEIR

History, Best Method of Treatment in Cultivation, Propagation, &c.

AND

MONTHLY CHRONICLE

OF

BOTANICAL AND HORTICULTURAL NEWS.

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CONTINUED

BY JOHN LINDLEY, Ph. D. F.R.S. AND L.S.

PROFESSOR OF BOTANY IN UNIVERSITY COLLEGE, LONDON,
AND THE ROYAL INSTITUTION OF GREAT BRITAIN,
VICE-SECRETARY OF THE HORTICULTURAL SOCIETY,
&c. &c. &c.

Vol. 27, 1841

No! No!

1840.

OR VOL. XXVI. OF THE ENTIRE WORK.
OR VOL. XIII. OF THE NEW SERIES.

——viret semper——nec fronde caducâ
Carpitur.

LONDON:
JAMES RIDGWAY, PICCADILLY.

M.DCCC.XL.

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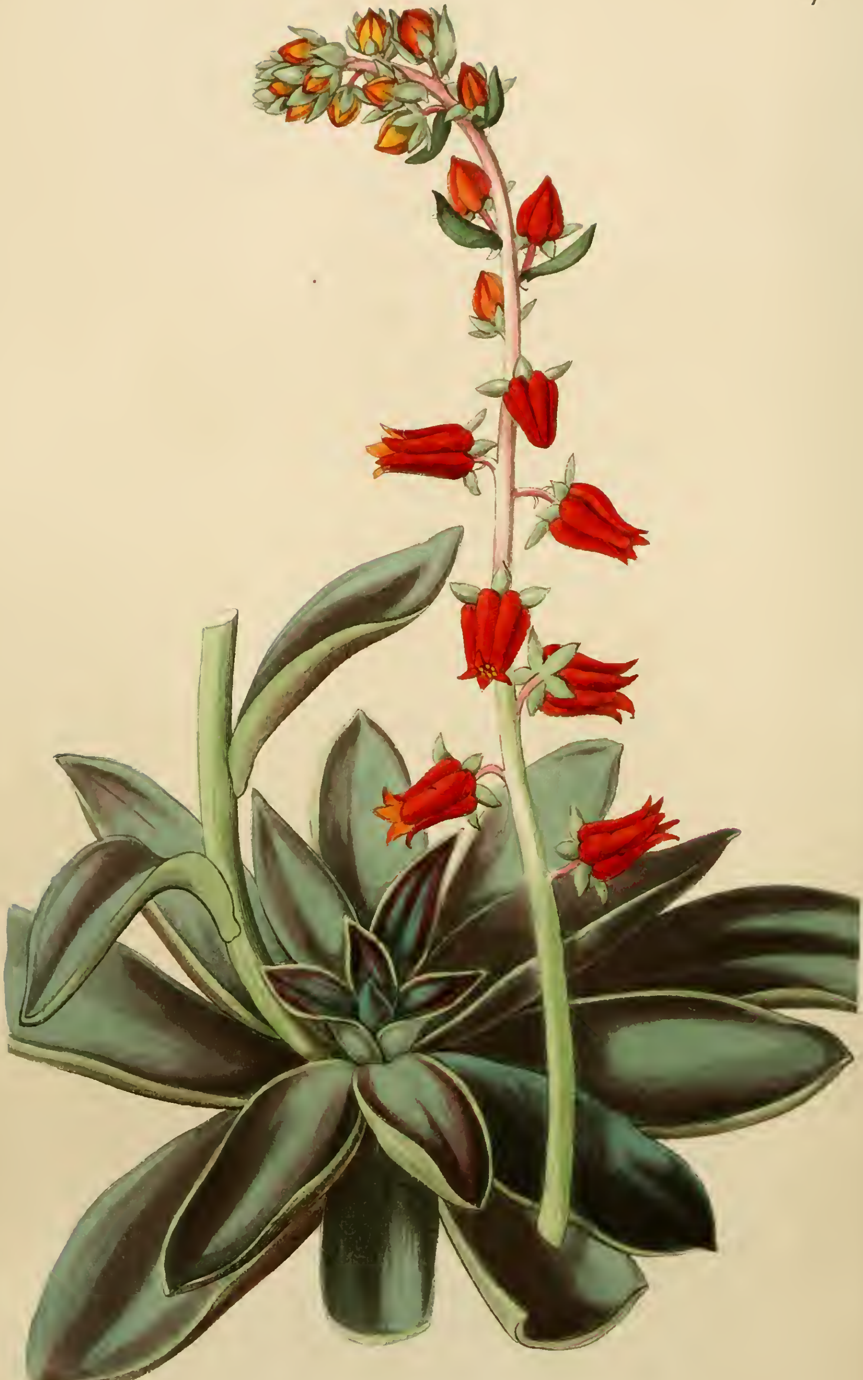

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly Jany 1 1841 Barclay sc.

ECHEVĔRĬĂ lūrĭdă.

Lurid Echeveria.

DECANDRIA *PENTAGYNIA.*

Nat. Ord. CRASSULACEÆ.
ECHEVERIA. Botanical Register, vol. 15. *t.* 1247.

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E. *lurida;* foliis rosulato-confertis oblongis concavis glaucis discoloribus, racemo apice nutante, floribus pedunculatis.

This plant is in many respects similar to *E. secunda,* being like that species stemless, with the leaves collected into a circular patch, in the manner of a House-leek. It differs however in having longer and more blunt leaves, which are deeply stained with dull purple. The flowers too are a richer scarlet.

The genera Echeveria, Cotyledon, and another or two of the Crassulaceous order are truly monopetalous, that is to say, their petals are united by the edges into a single organ; and yet the Crassulaceous order is arranged in the Polypetalous division of the Natural System of Jussieu. What are we to infer from this? Is it that Echeveria and the others are not Crassulaceous? or that the distinction between Monopetalous and Polypetalous structure ought not to be taken as a fundamental character by which to classify plants?—The latter is surely the inevitable conclusion; and there can be no doubt that the first step to be taken in arriving at a truly natural system of classification, is to discover some means of dispensing with modifications of so unimportant an organ as the corolla, in framing the distinctive characters of the higher systematic divisions under which the natural orders are to be grouped.

A hardy greenhouse perennial, requiring about the same treatment as the various species of Fig Marygolds, and smaller Crassulas; that is, it should be kept in small pots, well drained, and filled with a mixture of leaf-mould and brick-rubbish, covering the surface of the pot with silver sand.

January, 1841.

The plant should be kept in the greenhouse during summer, for if placed out of doors it is liable to suffer from excess of moisture.

It is increased freely, as every leaf with a bud at the base will soon form a good plant, if treated in the ordinary way.

The following characters of some Orchidaceæ will serve to occupy an empty space in our pages.

MICROSTYLIS *caulescens;* caule elongato folioso, foliis lanceolatis basi angustatis, racemo laxo multifloro cernuo, pedicellis filiformibus bracteis longioribus, labello acuminato intra basin biaurito.——The only caulescent species yet described. The stem is about four inches long, and is covered with ten or twelve distichous leaves. The flowers are very small, green, in a thin raceme, about three inches long.——*Found by the late Colonel Hall in Peru, in the valley of Lloa, at the elevation of* 8000 *feet above the sea.* (Herb. Hooker.)

ISOCHILUS *grandiflorum;* vaginis imbricatis, foliis distichis lineari-lanceolatis acutissimis, floribus solitariis axillaribus, bracteâ acuminatâ sepalorum dimidio æquali, sepalis acuminatissimis, petalis duplo brevioribus conformibus, labello lineari-oblongo utrinque emarginato basi nudo, columnâ petalis parum breviore.——This is very like I. graminifolium, but the flowers are four times as large, independently of the distinctions included in the foregoing character.——Good specimens exist in the Royal Herbarium of Munich, collected in *Peru by Hœnke;* but I find nothing like it in the Reliquiæ Hœnkeanæ.

ISOCHILUS *graminifolium* (Humb. Bonpl. & Kunth, nov. g. et sp. pl. 1. 340. t. 78.); vaginis imbricatis foliis distichis lineari-lanceolatis acutissimis, floribus solitariis axillaribus, bracteâ acuminatâ pedunculo breviore, sepalis aristatis, petalis conformibus duplò brevioribus, labello lineari-oblongo utrinque emarginato basi callo magno duro oblongo, columnâ petalis duplò breviore.——When not in flower this is undistinguishable from I. *grandiflorum.* It is well figured in Humboldt and Bonpland's work, excepting the analysis, in which the form of the labellum is inaccurate, and the presence of a hard oblong callus, called a purple stain in the description by M. Kunth, is overlooked.——*Peru, Mathews*, 1064; *Trunks of trees near Lloa, Jameson.* (Herb. propr. & Hooker.)

LÆLIA *caulescens;* folio coriaceo lineari-oblongo caule tereti longiore, scapo elongato tereti e spathâ membranaceâ cylindraceâ erumpente, racemo subdecemfloro, bracteis squamæformibus erectis rigidis striatis, sepalis petalisque subæqualibus lineari-lanceolatis acutis, labelli postici nudi lobo intermedio obtuso crispo lateralibus parùm longiore.——A species very near L. cinnabarina. The flowers are apparently purple, and about the size of L. rubescens. The lip is perfectly destitute of all elevations or inequalities. In the herbarium of von Martius is a smaller plant from the same locality, with a three-flowered raceme, and much shorter leaves; apparently it is a mere variety.——*From the Serra de Piedade in the province of Minas Geraes in Brazil* (herb. Martius).

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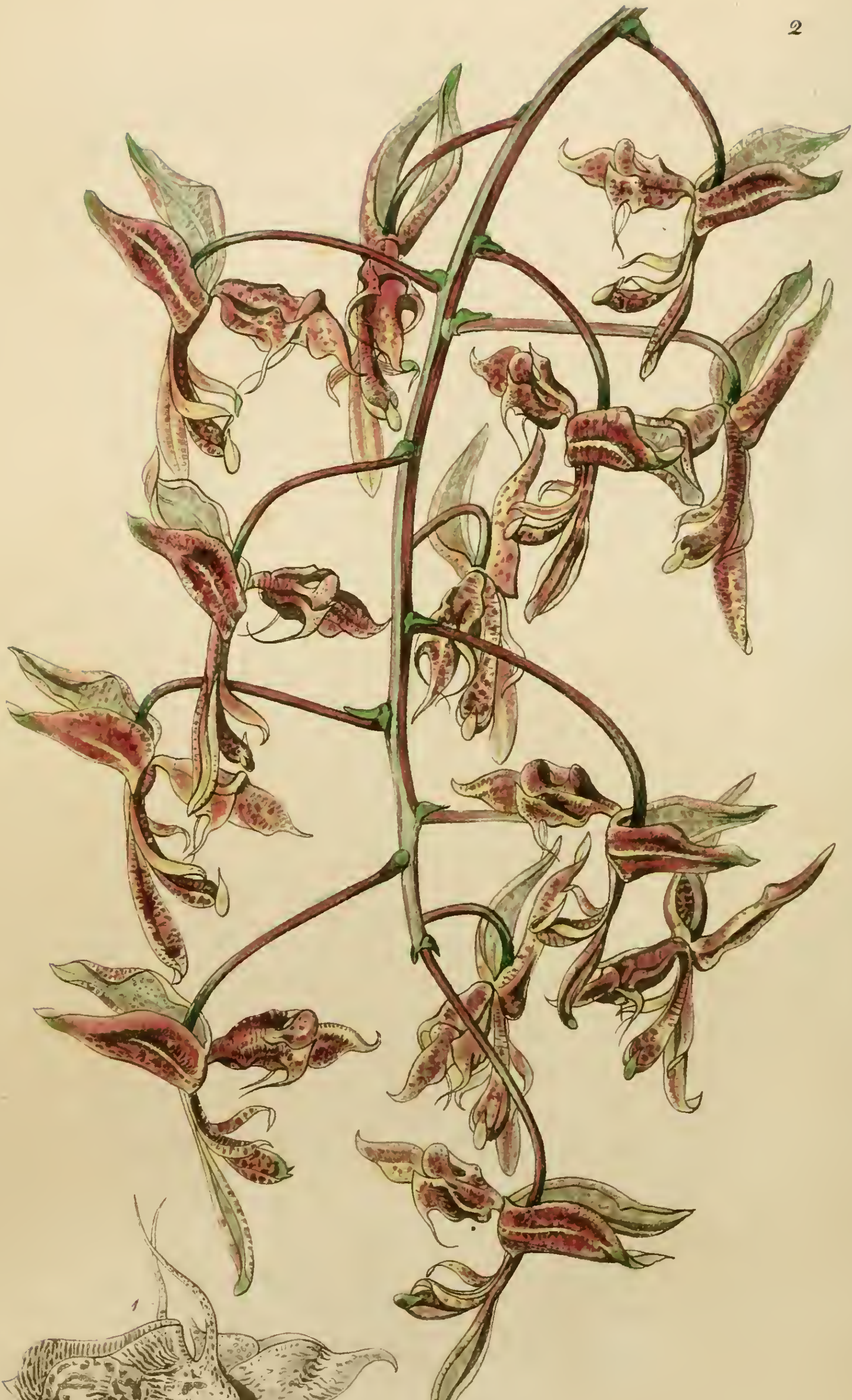

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GONGŌRĂ bufōnĭă.

Toad-skinned Gongora.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
GONGORA. Botanical Register, vol. 19. *fol.* 1616.

G. *bufonia;* hypochilii convexi cornubus lateralibus obsoletis, aristis setaceis, epichilio acuminato paulò breviore, pedicellis columnâ triplò longioribus.

In May, 1839, I received this plant from Mr. Rucker, with the following note:—

"The accompanying flower of a *Gongora*, which was sent me last year from Hamburgh by a friend who had received it from the Brazils, appears to me different from any of the species I have seen. The pseudo-bulbs are as large as in *G. maculata*, and are almost white; the leaves are also of a pale whitish green colour, and the whole appearance of the plant is different from any I know."

Upon comparing it with the other species of the genus already in cultivation it is found to differ, not only in its singular colour, which is a dull purple, like wine-lees, in the form of very irregular stains and spots, upon a dirty yellow ground, but also in the minuter parts of its structure.

It may be distinguished from *G. fulva*, *maculata*, and *atropurpurea*, in wanting the lateral horns which project from the sides of the lower part of the lip in those species. From *G. nigrita*, which equally wants those horns, it differs in having much longer bristles, and a lip altogether longer, especially at the lower half.

It should be cultivated with other Orchidaceous plants in the stove. The soil should consist of brown turfy peat well mixed with drainage. If the plant is kept a little above the surface of the pot, the roots will soon spread themselves in all directions in the soil, and also in the atmosphere: sure signs of health and luxuriance; the flowers also will hang down over the soil and pot and have a curious appearance. Although it must not be kept too wet in winter, yet extreme dryness is hurtful, and should be guarded against; as the spring and summer advance it should be kept in the warmest and most moist part of the house.

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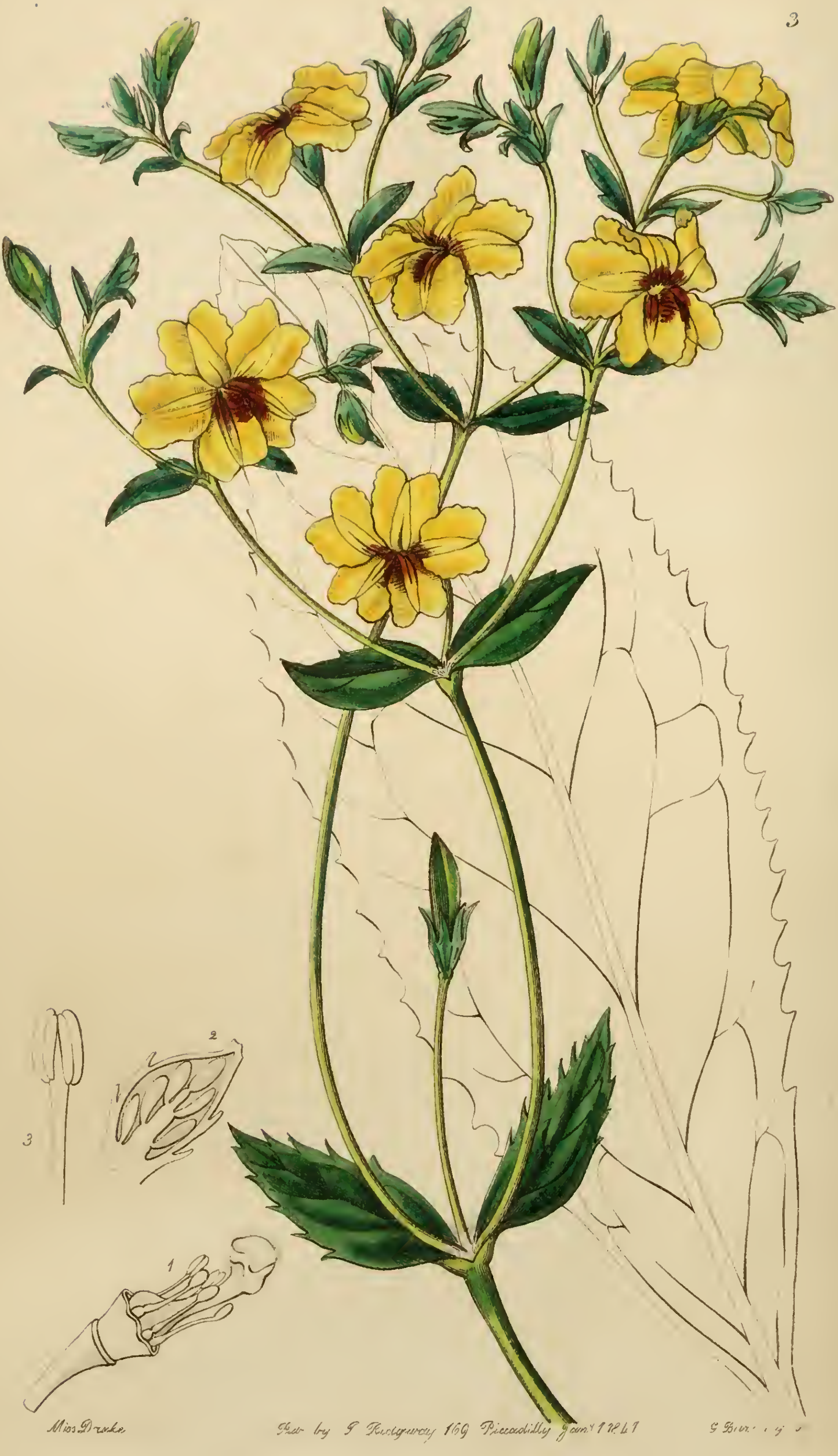

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* EUTHĂLĒS macrophylla.

Broad-leaved Euthales.

PENTANDRIA *MONOGYNIA*.

Nat. ord. Goodeniaceæ.

EUTHALES. Calyx inferus, tubulosus, 5-fidus, inæqualis. *Corolla* tubo infernè ovario adhærens, apice hinc fisso; limbo bilabiato. *Antheræ* distinctæ. *Stylus* indivisus. *Stigmatis* indusium bilabiatum. *Capsula* 4-valvis, basi biloculari. *Semina* imbricata, compressa.——*Herba acaulis, habitu et inflorescentia* Velleiæ. *R. Br. Prodr.* 580.

E. *macrophylla;* caule erecto crasso ramoso, foliis oppositis petiolatis oblongis dentatis, floribus laxè dichotomè paniculatis. *Bot. Reg.* 1840. *misc.* 119.

"A half-superior corolla, joined with an inferior calyx, characters found both in this genus and in Velleia, is up to the present time without example." Such were the words of Dr. Robert Brown, when he founded the genus in 1810, and they remain without example up to the present day. From Velleia, with which among Goodeniaceæ Euthales agrees, that genus differs in its tubular not 5-leaved calyx, and in wanting an epigynous gland between the two anterior filaments.

This is very different from *E. trinervis*, the original species, in having a strong erect branched stem, with broad deep green leaves, as much as six inches long. It grows from three to four feet high, and is covered with gay yellow and brown flowers during all the summer. It is a greenhouse herbaceous plant.

Fig. 1. represents the adherent base of the corolla, with the stamens and pistil; 2. shews a section of the ovary; 3. is a stamen.

---

* From ευ well, and θαλλω to flower, in allusion to its gay and numerous flowers.

The accompanying figure was made in the garden of the Horticultural Society in June last, where it had been raised from seeds sent to Captain James Mangles, R.N. from Port Augusta, by Mrs. Molloy, a lady enthusiastically attached to the Botany of this remote region.

It is a greenhouse perennial of the easiest culture, and goes on producing a succession of flowers throughout the summer and autumn months. There is no doubt that it would succeed very well and flower freely if planted against a south wall in summer; but the severity of the winter, particularly about London, would prove fatal to it, and therefore if treated in this manner it must be taken up and protected. It grows well in any rich free soil, and strikes readily from cuttings.

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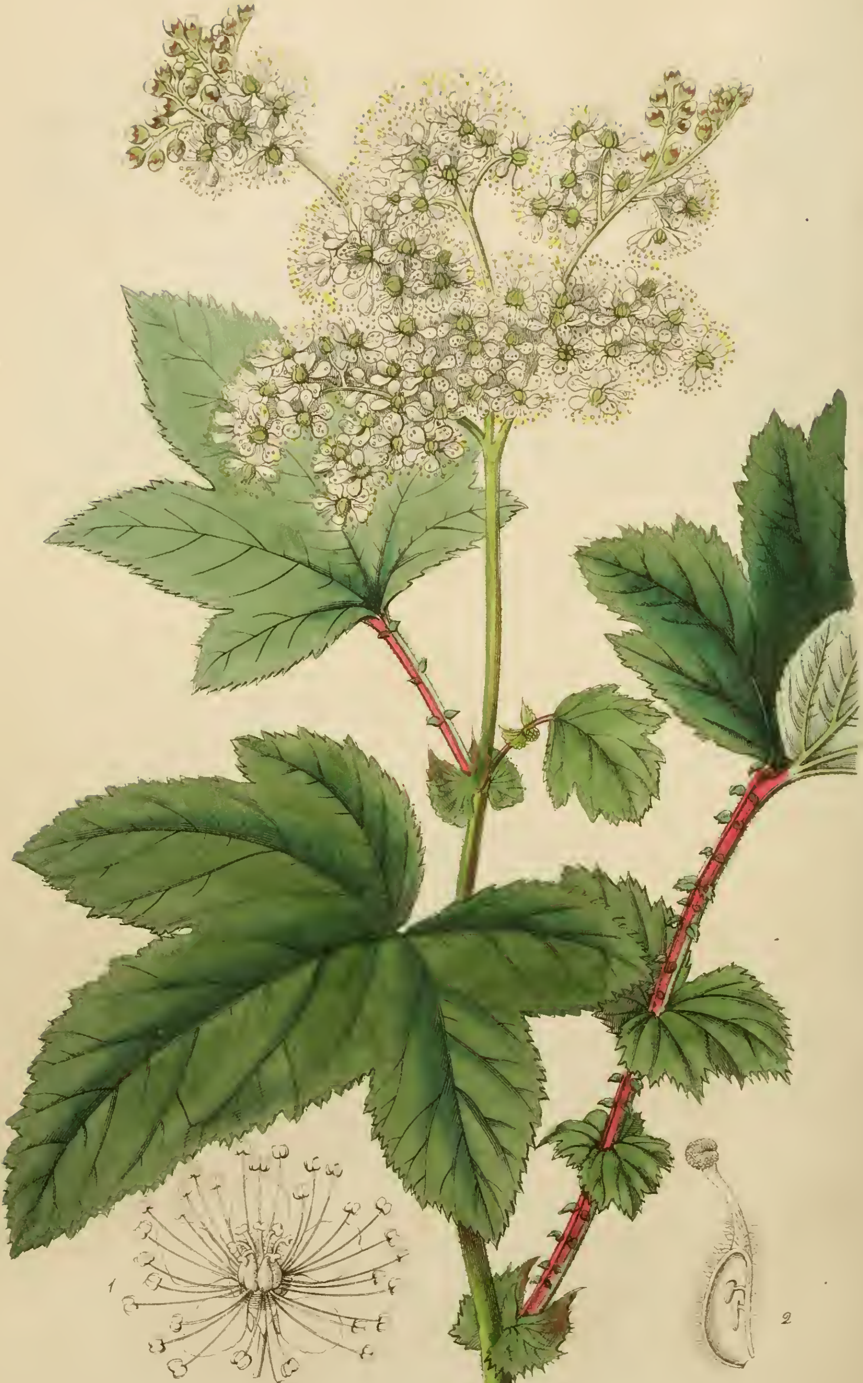

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SPIRǢĂ Kamtchātĭcă, *var.* himalensis.

Himalayan form of the Kamtchatka Meadow-sweet.

ICOSANDRIA *PENTAGYNIA.*

Nat. ord. Rosaceæ.
SPIRÆA. Botanical Register, vol. 16. *fol.* 1365.

Sect. VI. Ulmaria. *DC. Prodr.* 2. 545.

Torus obsoletus. *Stylus* clavatus retroflexus. *Ovula* 2, circa mediam ovarii suturam affixa, appensa. *Carpella* ovario vix duplò majora, erecta, rarò contorta.——Flores hermaphroditi, cymoso-umbellati. Folia pinnatisecta, stipulata. Herbæ. *DC. Prodr. l. c.*

S. *Kamtchatica;* foliis simpliciter palmatis, superioribus subhastatis v. lanceolatis, petiolis appendiculatis, floribus corymbosis, sepalis reflexis pilosis, carpellis hirsutissimis parallelis, stylo subcapitato. *DC. l. c.*

β. himalensis; foliis subtus tomentosis ; laciniis sæpiùs acuminatis.

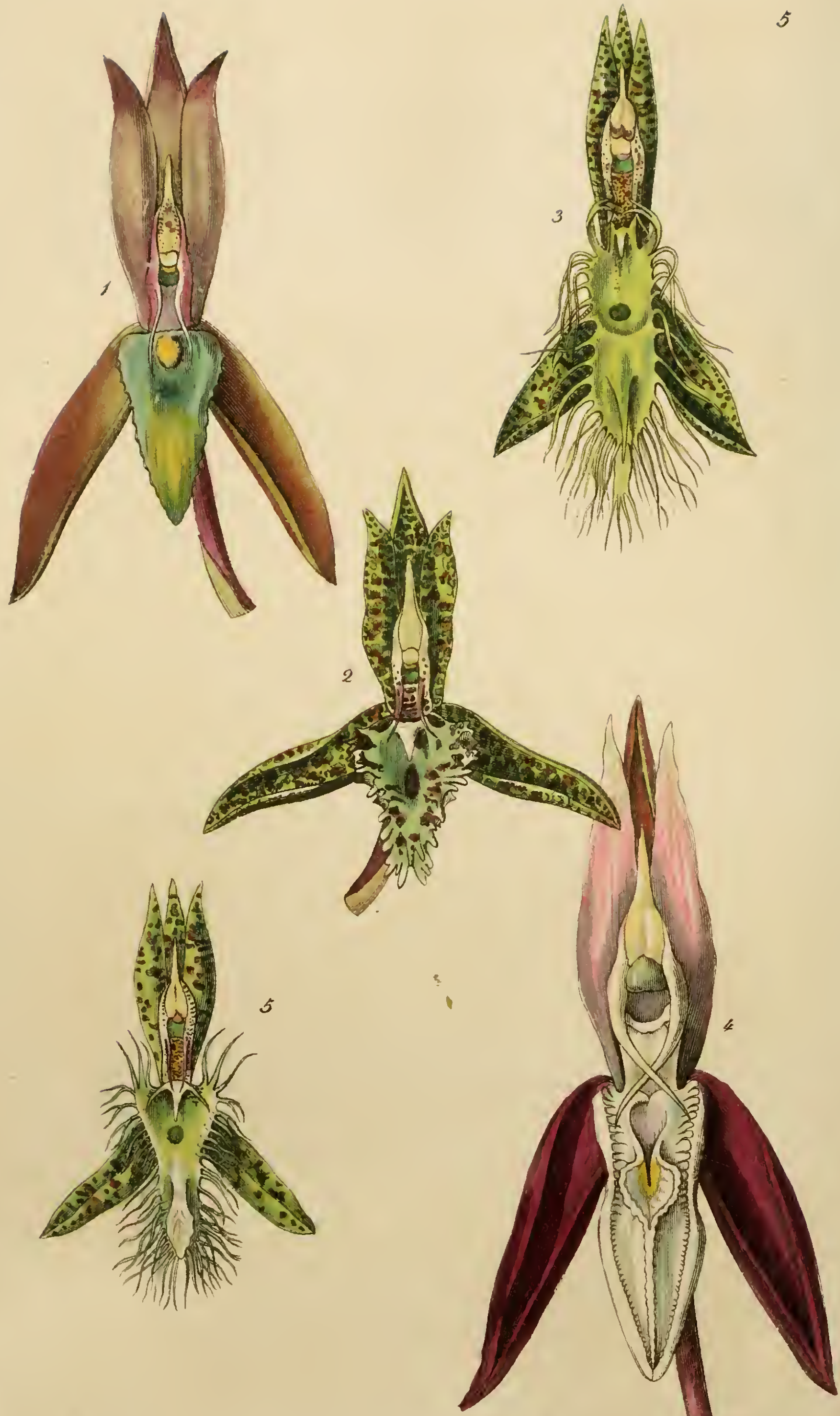
So many European forms of vegetation occur in the Himalayan mountains, that to find there a plant very like our British "Queen of the Meadows" (S. ulmaria) excites no surprise. The plant now figured is not however exactly that species, but is very nearly allied to it, apparently identical with a Kamtchatka species, from which it scarcely seems to differ except in having the leaves white with down underneath ; a circumstance of no consequence, because *S. ulmaria* itself varies with leaves both downy and smooth underneath.

Upon comparing wild specimens from Dr. Royle and Dr. Wallich, with others from Kamtchatka, it is found that in addition to the smoothness of the latter the segments of the leaves are rather less acuminate.

Our drawing was made in the garden of the Horticultural Society.

A hardy perennial, requiring no more care and about the same treatment as the common Spiræa Filipendula, or Ulmaria: like them it flowers best when planted in rather a damp situation, and partially screened from the rays of the sun.

It was raised from seeds received from Dr. Royle in 1838, and said to have been collected in Cashmere, but it is in most collections of seeds from the north of India.



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VARIOUS SPECIES OF CATASETUM.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
CATASETUM. *Botanical Register, vol.* 10, *fol.* 840.

It happens in some genera of plants that the different species, or supposed species, present so great a similarity in their foliage and general appearance as, in those respects, to seem identical when figured. It is therefore my intention occasionally to occupy a plate with flowers only of such plants, and thus to present a better comparative view of species whose only distinctions reside in their blossoms.

On the present occasion the genus Catasetum affords five illustrations.

Fig. 1. CATASĒTŪM callōsūm.

The Tumour-lipped Catasetum.

C. *callosum;* petalis concoloribus lineari-lanceolatis sepalo dorsali conformi suppositis, labello ovato-oblongo obtuso basin versus saccato supra saccum callo magno (aurantiaco) instructo margine obsoletè crenato, columnæ acuminatæ cirrhis vix ultra callum extensis. *Bot. Reg.* 1840, *misc.* 183.

Exactly like Catasetum tridentatum, *var.* floribundum in habit, but its flowers are different. The sepals and petals are of a dull reddish brown, without spots; the column is of the same colour, which may perhaps be best compared to that of old spoilt port wine. The lip is green, flat, with a yellow tubercle near the base above the hollow, and a stain of the same colour near the apex. It was imported by Messrs. Loddiges from La Guayra.

Fig. 2. CATASĒTŪM cornūtūm.

Horned Catasetum.

C. *cornutum;* petalis maculatis lineari-lanceolatis sepalo dorsali conformi suppositis, labello subcordato-ovato basin versus saccato sub sacco cornu valido inflexo instructo processibus teretibus rigidis fimbriato basi dentato, columnæ acuminatæ cirrhis cornu labelli attingentibus. *Bot. Reg.* 1840. *misc.* 182.

A native of Demerara, with the habit of Catasetum barbatum. There are sixteen or more flowers in a raceme, of a dull green, richly spotted with deep blackish purple. The lip is light green, spotted with the same dark colour; above the base it is hollowed out; above the hollow it is furnished with a strong inflexed white horn, which rises from a somewhat rugged base; and the margin is broken up into slender stiff processes, which are evidently an incomplete state of the fringes found on the lip of Catasetum cristatum, &c. It was imported by Messrs. Loddiges.

Fig. 3. CATASĔTŪM barbātum, *var.* proboscideum.

Long-beaked Catasetum.

C. *proboscideum;* labello deflexo multifido: laciniis filiformibus laceris, columnâ apice proboscidiformi: cirrhis deflexis columnâ longioribus. *Bot. Reg.* 1839. *misc. no.* 140.

I had unadvisedly supposed that this plant was a new species; and it is perhaps as much entitled to such a character as some others about which no doubt has hitherto been raised. But I confess my inability, upon a formal examination of it, to distinguish it specifically from C. barbatum. It is however a different looking plant, owing to the beard of the lip being green and not pink. Mr. Wailes of Newcastle received it from Dr. Gardner, who found it growing on a small species of Palm near Sertao. I have also received it from the Hon. and Very Reverend the Dean of Manchester.

Fig. 4. CATASETUM laminatum, *var.* eburneum.

White-lipped Knife-blade Catasetum.

C. laminatum. *Sertum Orchidaceum, t.* 30.
β. *eburneum;* labello eburneo columnâ petalisque immaculatis. *Ibid.*

The original *C. laminatum,* figured in the Sertum Orchidaceum, had its lip and petals spotted with purple. This, which is a mere variety, is remarkable for a total absence of spots from those parts, and for its lip being a pure ivory white. Both varieties were sent from Mexico to the Horticultural Society by Mr. Hartweg.

Fig. 5. CATASETUM lanciferum.

Lance-bearing Catasetum.

C. *lanciferum;* petalis maculatis lineari-lanceolatis sepalo dorsali conformi suppositis, labello subcordato-ovato fimbriato basin versus saccato sub sacco cornu tripartito instructo, sub apice laminâ lineari-lanceolatâ aucto, columnæ cirrhis vix columnâ longioribus.

A Brazilian species, for which I am indebted to the Hon. and Very Reverend Wm. Herbert. It was collected by Dr. Gardner in Brazil, and is perhaps a variety of *C. barbatum;* but it is very different in its lip.

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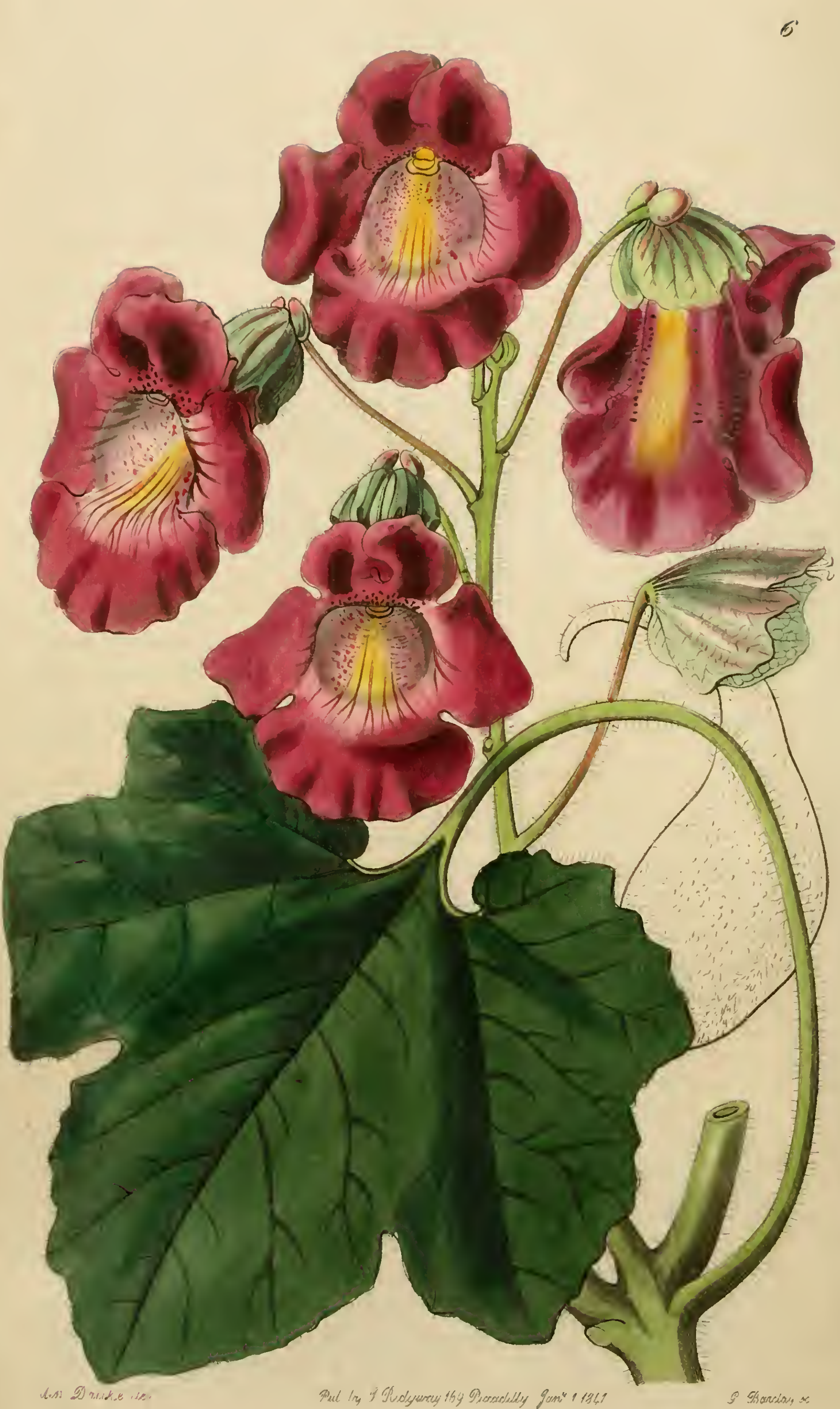

A.M. Drake del.

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G Barclay sc.

MARTYNIA fragrans.

Fragrant Martynia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. PEDALIACEÆ.

MARTYNIA. Botanical Register, vol. 11. *fol.* 934.

M. *fragrans ;* foliis cordatis angulatis grossè dentatis subopposititis longè petiolatis, racemo paucifloro, calycibus campanulatis obliquis plicatis, bracteolis plano-convexis fungosis, floribus tetrandris. *Bot. Reg.* 1840. *misc. no.* 206.

In the Miscellaneous notices of this work for 1840, the plant now figured was called "a half-hardy annual of very great beauty and delicious fragrance." The accuracy of that statement will now be seen, for surely so remarkable a flower as that on the opposite page well deserves this eulogium.

It is said to be a Mexican plant, from the vicinity of the Real del Monte Mines. For my knowledge of it I am indebted to Mr. Marnock, of the nursery, Hackney, who has also supplied the following memoranda concerning it.

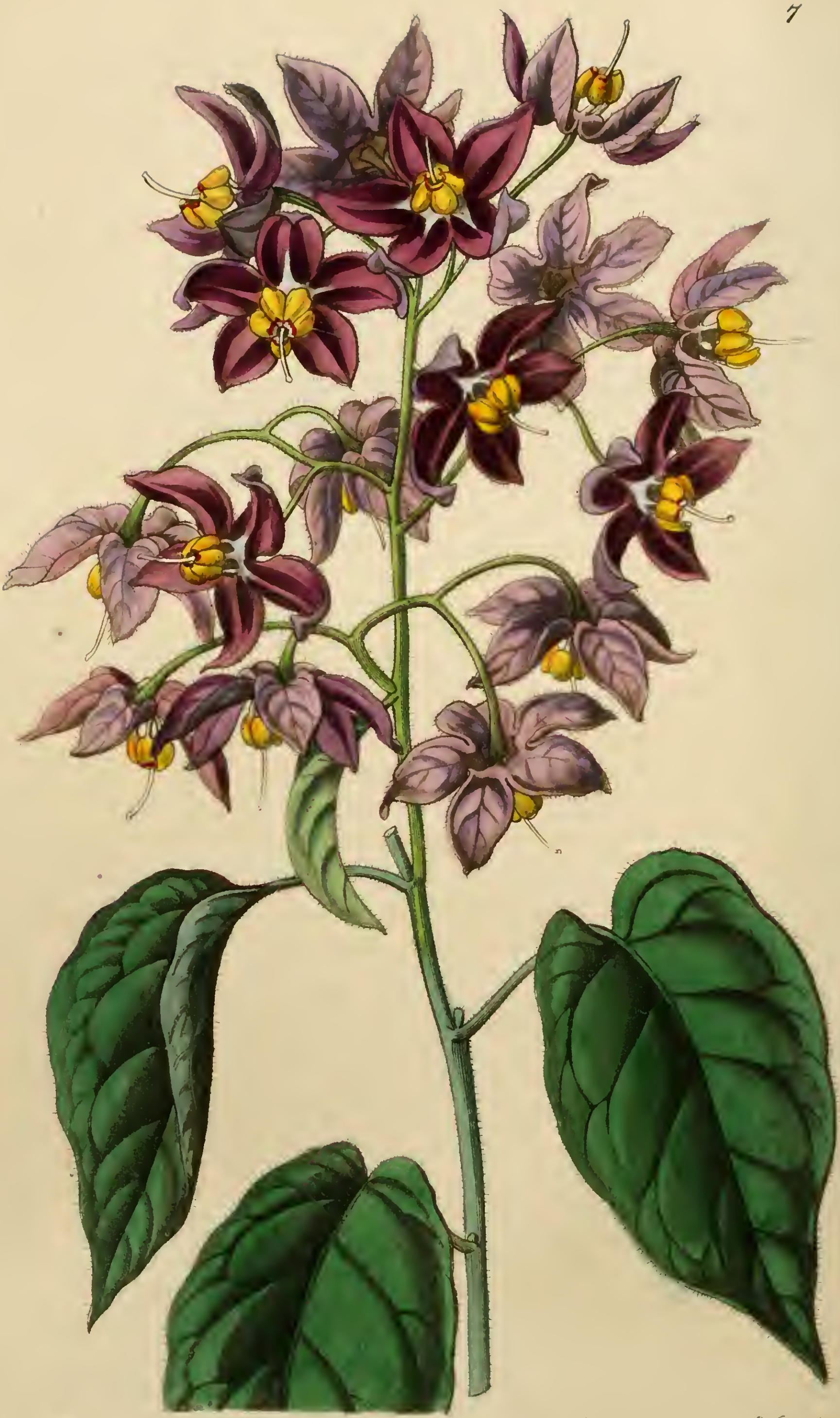
"I received the plant about midsummer, it was at the time in bloom, and upwards of a foot in height. The first spike of flowers was then opening, being produced from the extremity of the branchless stem; two lateral branches were then produced, and these also bloomed from the extremity, sending forth lateral opposite branches. In this way the plant continued to grow, and in a pot of light rich earth attained the height of three feet, and about the same extent in diameter. It was sent to me from a distance of upwards of two hundred miles, and was much injured by the journey; it may therefore be fairly inferred that under more favourable circumstances this plant might be had in much greater perfection. To grow it in a superior manner in pots, it will require the same treatment as the Balsam.

" It was at first placed in the stove, but the temperature being found too high for it, it was afterwards removed to an open frame, and remained exposed night and day throughout the summer.

" I may mention a peculiarity for which this plant is remarkable, with which you are no doubt familiar ; like the Mimulus, the divided stigma collapses on the slightest touch.

" The full grown seed-pods contain about fifteen rough oval flattened black seeds."

The curved downy figure, in outline, in the back-ground of the annexed plate, represents one of the hard horned seed-vessels.



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SOLĀNŪM macranthērūm.

Large-anthered Bitter-sweet.

PENTANDRIA *MONOGYNIA.*

Nat. ord. SOLANACEÆ.

SOLANUM. Botanical Register, vol. 1. *fol.* 71.

S. *macrantherum;* caule scandente lignoso fruticoso, foliis petiolatis ovatis acutis subtus tomentosiusculis, racemis paniculatis laxis. *Dunal, Solan. p.* 16. *n.* 81. *Römer & Schultes,* 4. 596. *Bentham Pl. Hartweg. no.* 367.
S. dulcamaroides. *Poir. encycl. meth. suppl.* iii. 750.

Suffrutex *pilosus, subscandens, pluripedalis.* Folia *ovato-cordata, acuta, mollia, omnia reniformia et indivisa.* Paniculæ *terminales, laxæ, multifloræ, pedunculis bisbifidis.* Calyx 5-*angularis.* Corolla *fere sesquiunciam lata, intus atropurpurea, extus violacea, annulo faucis pallido.* Antheræ *ratione corollæ magnæ, luteæ, breves, obesæ: inferiore majore.*

A fine half-shrubby greenhouse plant, with large clusters of deep purple flowers, whose centre is occupied by a knot of large bright yellow anthers. It is nearly allied to the *bitter-sweet* of our hedgerows, but its flowers are very much larger, and handsomer.

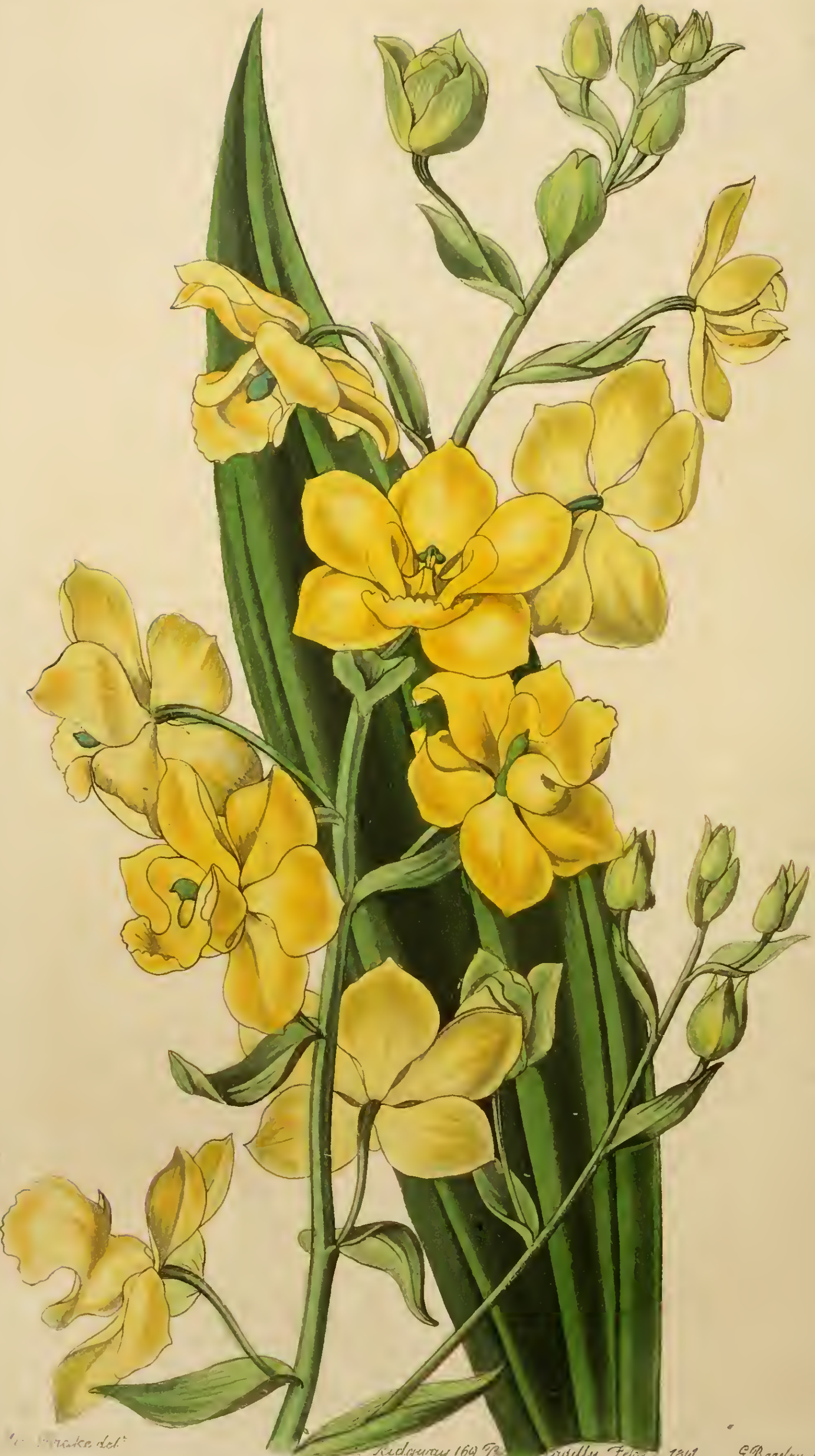
For its introduction we are indebted to Mr. Page, nurseryman, Southampton, who writes of it thus:—

"Sept. 24, 1840. The Solanum is growing vigorously, and promises to be arborescent. It was kept during the last winter in a conservatory. I received the seeds in July, 1838, from Mexico, from Mr. Parkinson; they were sown late in the autumn, and many of the plants damped off. That which flowered is now about three feet high, with several branches, and fine large leaves. It is a very beautiful plant, and I expect will produce an abundance of flowers from its vigourously growing shoots.

In Mexico the plant scrambles up any thing it may be near, just as happens to the English Bitter-sweet, and this habit will make the species still more acceptable to cultivators. It would probably succeed well if trained over a trellis in a pot; and should in that state be highly ornamental.

In common cultivation it doubtless requires the same treatment as Solanum crispum, and will strike freely from cuttings of the half-ripened wood.

8



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8

CYRTOPŎDĬŪM Andersōnĭī.

Anderson's Curve-foot.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.

CYRTOPODIUM. R. Brown Hort. Kew. 5. 216. *Lindl. Gen. & Sp. Orch. no.* CXIV.

C. *Andersonii ;* bracteis oblongis patulis concavis, sepalis petalisque obovato-oblongis planis, labelli lobis rotundatis lateralibus erectis intermedio concavo basi sulcato apice crenulato : disco nudo.

C. Andersonii. *R. Br. l. c. Lindl. l. c. Bot. Mag. t.* 1800.

Cymbidium Andersonii. *Bot. Rep. t.* 651.

Tylochilus flavus. *Nees in verhandl. des vereins zu bef. des Gartenb.* viii. 191. *t.* 3.

Caules steriles (*seu bulbi*) *fusiformes, compressi, alii pedales, alii bi-tripedales, pollicem sesquialterum in medio crassi, striati, articulati, articulis brevibus, geniculis linea arcuata fusca notatis, neque contractis nec tumidis : iuniores dense vaginati, vetustiores denudati, virescentes.* Vaginæ *arctissime imbricatæ, distichæ, equitantes, scariosæ, nervoso-striatæ, griseæ ; inferiores mucronatæ, superiores foliiferæ.* Folia *pedis unius vel duorem pedum longitudine, erecta, lanceolata, utrinque attenuata, acuta, glabra, nervosa, plicata, saturate viridia.* Scapus *ad basin caulis iunioris eiusdemque altitudine radicalis, tri-quadripedalis, crassitie digiti minimi, teres, lævis, glaber, articulatus, vaginis tribus aut quatuor aphyllis obtusis internodio brevioribus subventricosis lineatis pallide viridibus præditus.* Racemus *compositus terminalis, sesqui-aut bipedalis, multiflorus, speciosus. Rami patentes, subflexuosi, superiores fastigiati* ; *singuli suffulti vagina singula, caulinis simili, sed iam in bracteam explicata, concava vel plana, ovata obtuse mucronata.* Flores *alterni, solitarii pedicellati, flavi cum virore.* Bractea *sub pedicello proprio patens, ovata, acute mucronata, concava, subundulata, lutescenti-viridula, pedicello longior neque vero florem attingens.* Pedicellus *pollicaris, patens, teretiusculus, glaber, transiens in germen sexangulare viride, nullis limitibus conspicuis a pedicello discretum.* Flos *ob pedicelli torsionem obliquus, labello infero, diametro pollicis.* Perianthium *patentissimum, sepalis subæqualibus, basi liberis, apice inflexis, nervosis ; horum exteriora* (*tria*) *ovata, obtusa cum mucrone subtilissimo acuto, dorso apiceque virescentia, basi intusque flava, margine undulata ; duo interiora paulo latiora et longiora, obovata, obtusa, infra apicem complicatum concava, reliquo ambitu æquali, flava, in doro medio virescentia.* Labellum *magnitudine sepalorum interiorum, cum processu brevi obliquo gynostemii articulo coniunctum et ab eo ad angulum rectum stigma versus inflexum, crassiusculum, staturate luteum, basi planum trisulcum, ambitu trilobum, lobis subæqualibus ; lateralibus erectis obovatis rotundatis, medio latiori reflexo subquadrato ex utroque latere emarginato, apice arcu rectave fere linea circumscripto subretuso lævissimo, basi depresso sulcatoque.* Callus *quadricrenatus, utrinque litura aurantiaca amplexus, inter lobos laterales, ubi medius ab iisdem deflectitur, situs est.* Gynostemium *germini incumbens, oblongum, antice planiusculum pallidum, prope labelli articulum, qui ipse fulvi coloris, brunneo irroratum ; pars superior gynostemii lobis lateralibus labelli brevior, dorso convexo obtuse carinato; apice trilobo viridi et pro antheræ insertione mucronato.* Clinanthium *late trigonum, convexum.* Rostellum

tridentatum dentibus subæqualibus, medio acuto. Stigma *transversale, ovale, profunde excavatum, glutinosum, viride.* Anthera *opercularis, triangularis, mucrone brevi truncato terminata, unilocularis, utrinque obtuse auriculata margine infero rotundato membranaceo, area media pellucida pallida, lateralibus opacis rufescentibus.* Glandula (*Retinaculum seu potius, Proscolla*) *rostello incumbens, prominula, triangularis, plana, albida.* Pollinia *quatuor, contigua, ceracea, duriuscula, fulva, bina ex utroque latere tam arcte, sibi incumbentia, ut unum corpus ovale, postice sulculo insculptum, constituere videantur; quorum anterius maius ovale antice convexum postice excavatum in cavum suum recipiens alterum seu posticum, minus angulosumque.* Caudicula *filiformis, bipartibilis, elastica, lutea, basi cruribus duobus glandulæ stigmatis imposita, constans e filis binis, ex angulo, quo pollinia utriusque lateris inter se cohærent, proficiscentibus basique in crura illa, de quibus iam sermo fuit, rursus divergentibus. Gynizus, magna copia exsudans, peracta anthesi profluens, lutescens, odoris ingrati aciduli.* Nees ab Esenb.

None of the published figures of this common plant convey a good representation of it. Both that in Andrews' Repository and the Botanical Magazine represent the sepals and petals as being wavy, which is the case only after the plant begins to wither. The figure in the Prussian Horticultural Transactions, under the name of *Tylochilus flavus*, is dingy, and the flowers are too small.

It is found wild in the tropical parts of America, where from the fleshy stems the shoemakers obtain a kind of paste or glue, which they use for the purposes of their art.

The cultivator of Orchidaceous plants finds no difficulty in keeping this in a healthy condition by potting it in well drained turf, and treating it like any of the common Catasetums; but the art of making it flower regularly and freely is not at present understood about London. It is probable that our houses for the cultivation of these plants are too uniform in temperature and moisture.

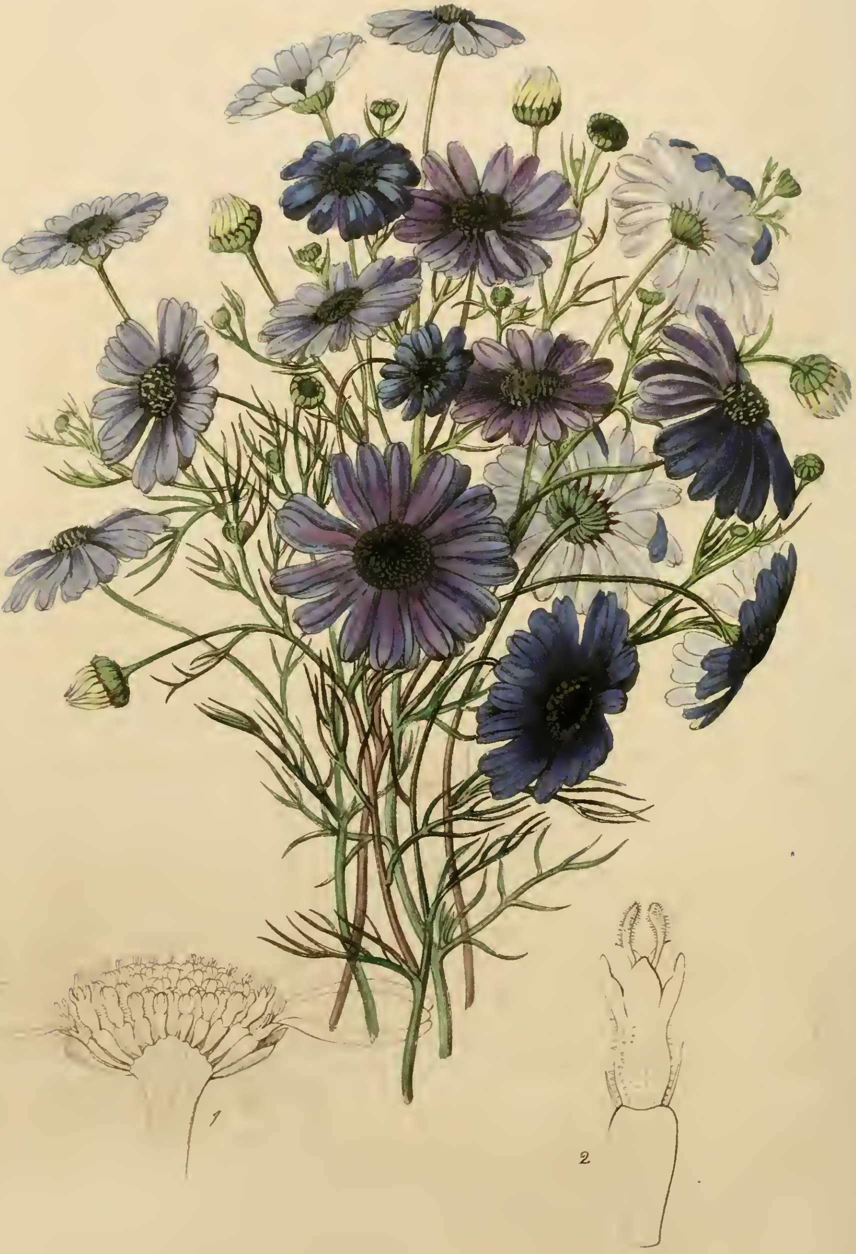
There are two varieties in our collections; one which is that now figured, has a branched inflorescence; the other has a perfectly simple one, with much larger flowers; the latter may possibly be the *C. glutiniferum*, a plant I am unacquainted with.

C. Wilmorei of the Flora Cabinet is nothing but *C. punctatum* ill flowered.

From Demerara I have an unpublished species collected by Mr. Schomburgk, with a simple raceme, small flowers, and a large fleshy oblong crest between the lateral lobes of the lip; this may be called Cyrtopodium cristatum and thus defined.

C. *cristatum;* racemo simplici, bracteis concavis patulis setaceo-acuminatis, labelli lobis subæqualibus lateralibus erectis intermedio concavo integro disco nudo, cristâ oblongâ carnosâ inter lobos laterales.

9



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9

* BRACHY̆CŎMĒ iberidifŏlĭă.

Large Swan Daisy.

SYNGENESIA *POLYGAMIA SUPERFLUA.*

Nat. ord. ASTERACEÆ or COMPOSITÆ; *Tubulifloræ*, *Asteroideæ*, *Bellieæ*, DC.

BRACHYCOME Cass. *Capitulum* multiflorum, heterogamum, floribus radii uniseriatis ligulatis fœmineis, disci tubulosis hermaphroditis. *Involucri* campanulati squamæ pauciseriales, margine membranaceæ. *Receptaculum* conicum, sub-alveolatum. *Corollæ radii* ligulatæ, *disci* tubulosæ limbo 5-dentato. *Antheræ* ecaudatæ. *Achenia* plano-compressa, erostria. *Pappus* brevissimus, setoso-coroniformis.——Herbæ *Novæ Hollandiæ perennes, erectæ;* foliis *alternis glabris parcè dentatis pinnatilobatis v. trifidis;* capitulis *solitariis ramos apice terminantibus,* disco *luteo,* radio *albo.* Endlich. gen. pl. no. 2349.

B. *iberidifolia;* glaberrima, caule erecto ramoso, foliis pinnatisectis: segmatis lineari-subulatis distantibus integerrimis, pedunculis nudis monocephalis, involucri squamis oblongis acutiusculis apice membranaceis, achæniis subteretibus clavatis lævibus v. vix tuberculosis pilis paucis hispidulis apice plicatis, pappo subnullo. *Bentham in Hugel's Enumerat. p.* 59. *no.* 198.

Pappus *sæpius deficiens; nunc* 1-2-*setosus.* Corollæ *tubus papilloso-glandulosus.* Flores *albi, lilacini, vel atro-violacei.*

The genus *Brachycome* is nearly allied to the Daisy, and like it consists of small herbaceous plants, with a nearly flat involucre and radiant flower-heads. It is, however, technically distinguished from the Daisy by the scales of the involucre being membranous, not green and leafy, and by the pappus existing in the form of one or two bristles, and not being altogether deficient.

Of this genus the greater part consists of little mean-looking flowers altogether unsuited to gardens; but that which is now figured is evidently one of the handsomest hardy annuals in cultivation. Its large violet-coloured flower-heads, varying in the depth of colour according to their age, the youngest being palest, have no rival among annuals of the same dwarf habit; and it is not too much to say the *Large Swan Daisy* deserves to be placed in the same class as *Nemophila insignis* and *Collinsia grandiflora.*

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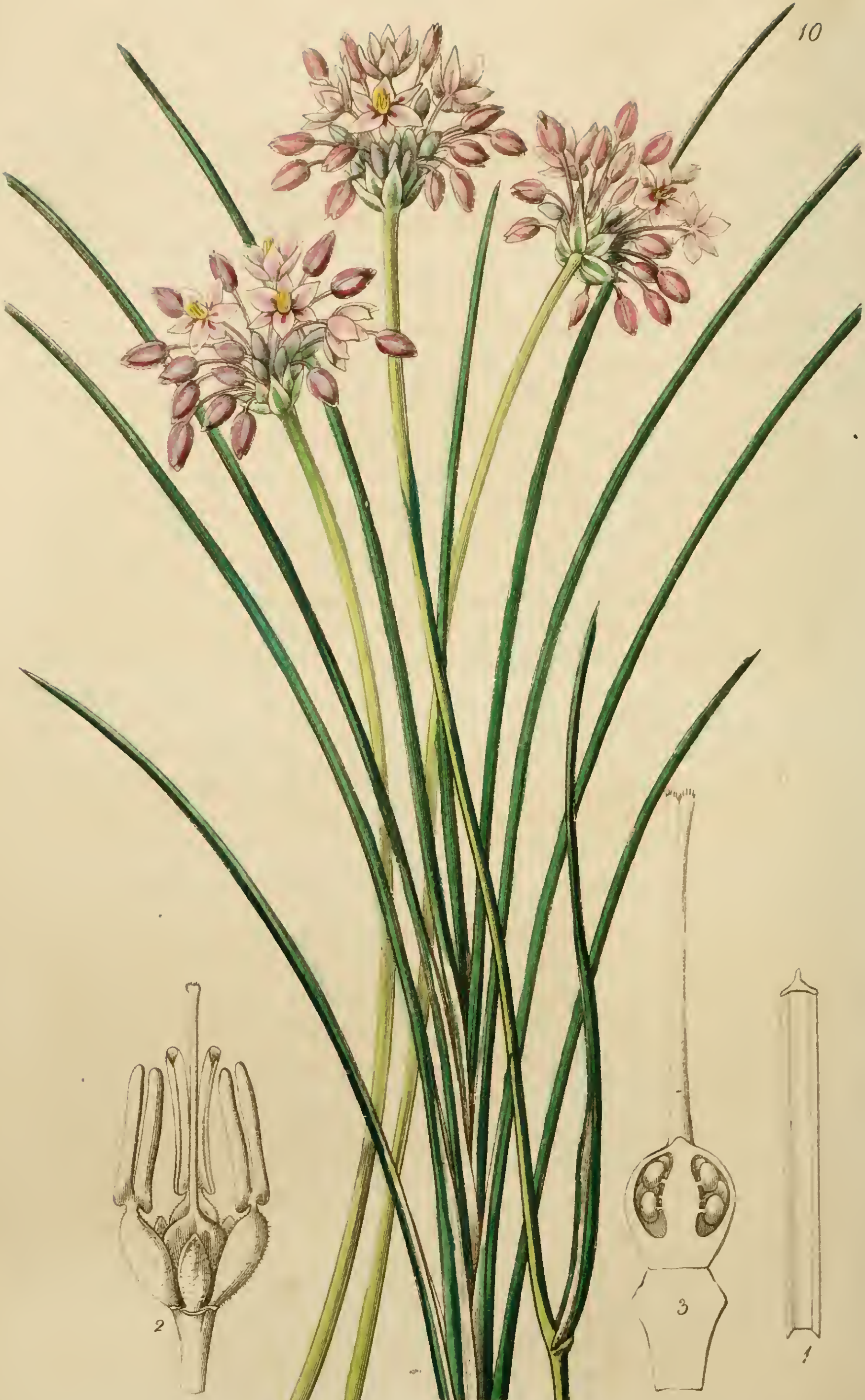
* From βραχυς short, and κομη hair; in allusion to the shortness of the pappus.

For the introduction of the species we are indebted to Mrs. Wray of Cheltenham; and the accompanying figure has been made from a clever sketch by Miss Wray.

It flowers freely in the open border, but is impatient of wet; at the latter end of the season it may however be lifted and transferred to the greenhouse, where it will go on blooming beautifully. It is however to be observed that there are many varieties, differing much in colour and size, and more particularly a lilac and a white sort. Mrs. Wray informs us that she has had numbers of plants of "every shade of blue and lustrous lilac, with considerable diversity in the size and shape of the flower-heads."

We understand that Mr. Lowe, of Clapton, has also raised the *Large Swan Daisy.*

10



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* SOWERBÆĂ laxiflōră.

Loose-flowered Sowerbæa.

TRIANDRIA *MONOGYNIA.*

Nat. ord. LILIACEÆ.

SOWERBÆA. Perigonium corollinum, sexpartitum, laciniis æqualibus, patentibus. *Stamina* 6, imo perigonio inserta: tria laciniis exterioribus opposita sterilia: *filamenta* filiformia, glabra. *Ovarium* triloculare. *Ovula* in loculis 2, peltata. *Stylus* filiformis, persistens; *stigma* simplex. *Capsula* membranacea, bilocularis, loculicido-trivalvis. *Semina* in loculis subsolitaria peltata. ——Herba *perennis,* in Nova Hollandia *orientali extratropica indigena;* radice *fasciculato-fibrosâ,* foliis *radicalibus filiformibus, basibus dilatatis, scariosis, distichè equitantibus, supra in stipulam intrafoliaceam solutam productis;* scapo *simplicissimo, nudo,* umbellâ *congestâ, capituliformi,* bracteis *membranaceis, exterioribus integris subsericeis interioribus lacero-multifidis;* pedicellis *sensim erumpentibus, apice cum perigonio roseo articulatis.* Endlicher genera plantarum, no. 1138.

S. *laxiflora;* foliis triquetris scapo subæqualibus, pedicellis floribus duplò longioribus, sepalis petalisque ovatis, antherarum loculis elongatis. *Swan River Plants, p.* lviii. *no.* 276.

A pretty little greenhouse herbaceous plant from Swan River, for which we are indebted to the Earl of Orkney. It differs from the old *Sowerbæa juncea* in having paler and smaller flowers, the stalks of which are long and slender, and in the leaves being nearly as long as the scapes, and triangular not tapering.

The plant has much the appearance of an Allium, but manifestly differs from that genus in having three of the stamens imperfect, scales only appearing in the place of filaments and anthers, a circumstance far from uncommon among the Liliaceous order of New Holland.

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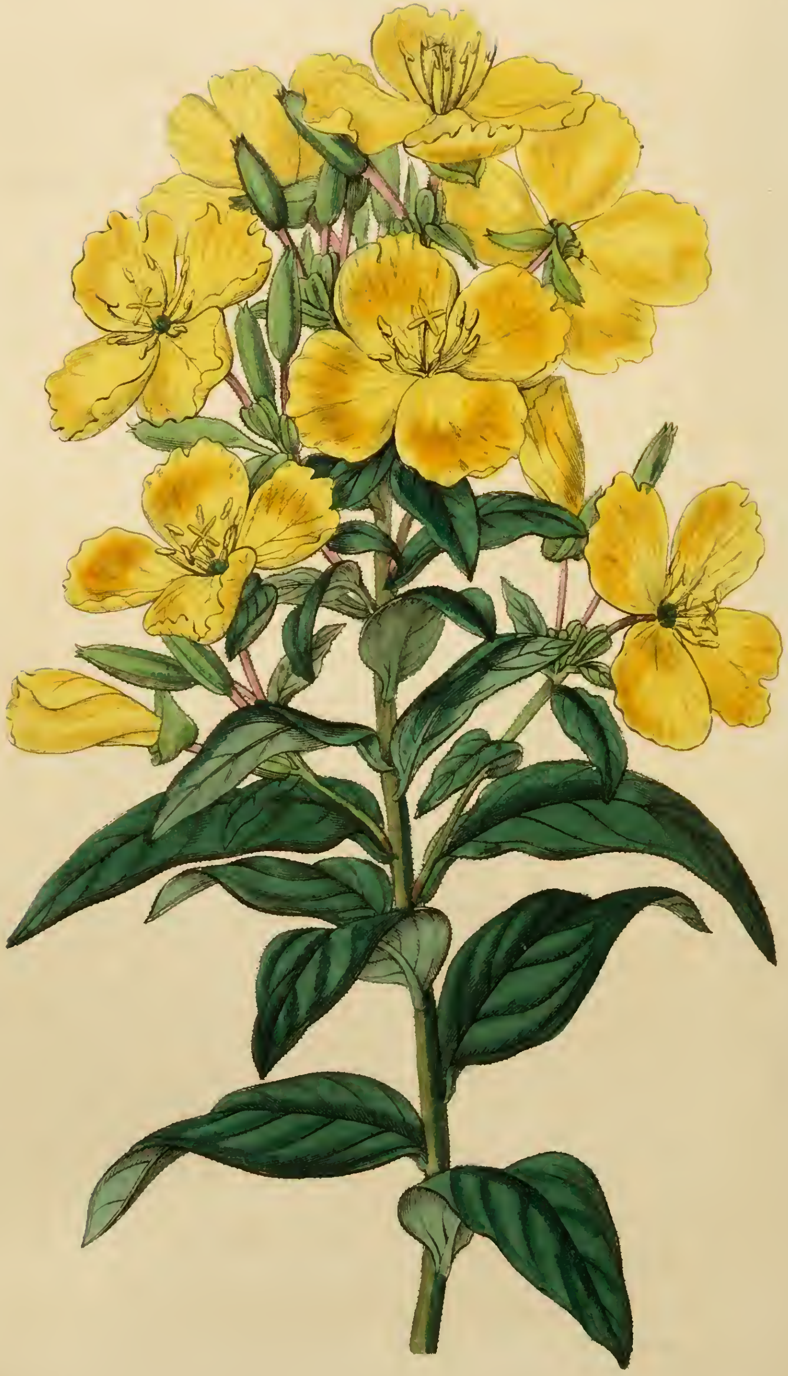
* Named by Smith in honour of the late Mr. James Sowerby, whose English Botany and British Fungi are records of zeal and patience such as few have left behind them.

Although so similar to an Allium in appearance, there is no smell of garlic, nor any tendency to produce a bulb. On the contrary the immediate affinity of Sowerbæa appears to be with *Anthericum*, *Thysanotus*, and other fibrous-rooted genera of the order, especially the latter and *Trichopetalum*.

Fig. 1. represents a portion of a leaf, to shew its true form; *fig.* 2. is the stamens and pistil, the floral envelopes having been removed; *fig.* 3. is a section of the ovary, showing that there are several ovules in each cell.



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ŒNOTHĒRĂ fruticōsă, *var.* indica.

Indian Œnothera.

OCTANDRIA *MONOGYNIA.*

Nat. ord. Onagraceæ.
ŒNOTHERA. Supra vol. 2, *fol.* 147.

Œ. fruticosa. *Linn. sp. pl.* 1. 456.

Among the numerous seeds obtained from India by the East India Company, have been received occasionally collections of old European and American annuals and perennials, originally sent out to India from this country. If it seldom happens that such collections produce anything of interest, we nevertheless occasionally find varieties of well-known plants, whose novelty and beauty claim attention.

In this manner was secured the great blue large-flowered Greek Valerian, whose blossoms are twice as large as those of the old shop-variety; and the plant now figured has been procured in a similar way.

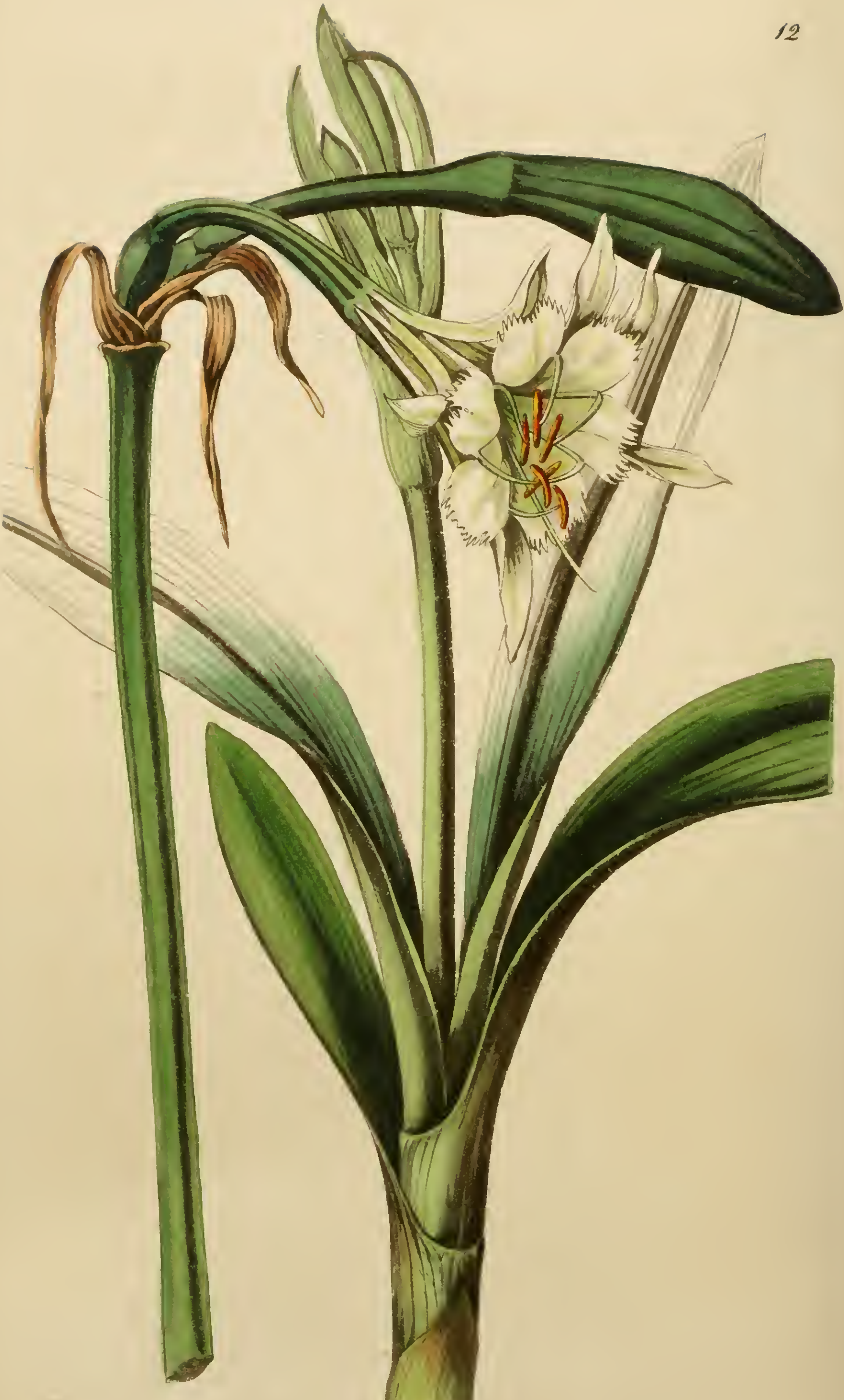
On several occasions, and from different parts of India, has been received an Œnothera, with perennial roots, dwarf stems, rather dull and hairy leaves, and very handsome bright yellow flowers, which approaches very near to the *Œ. fruticosa* of the United States, but is nevertheless distinct from all the varieties of that plant now cultivated. Its leaves are less shining than in that species, the corymbs of flowers are never elevated above the leaves on a long stalk, and the herbage forms a compact little bush about a foot and a half high. Sometimes its leaves are quite entire, occasionally they are toothed in a repand manner; in outline they vary from ovate to ovate-lanceolate.

This variety is not identical with, nor indeed very similar to, either *Œ. serotina*, *ambigua* or *canadensis*, or *incana*, nor even to the common form of *Œ. fruticosa*; still less does it resemble those glaucous species called *Œ. glauca* and *Frazeri*. On the contrary it would seem to be a peculiar variety, whose distinctive marks have been stamped upon it in consequence of long cultivation in the climate of India.

It is very pretty, and well worth a place among a collection of choice herbaceous plants. It is hardy, and grows about eighteen inches high, requiring the same treatment as Œnothera Frazeri or glauca. It grows and flowers freely in any good common garden soil, and is easily increased by dividing the old plants either in the autumn or spring; it flowers from June to August.

It was raised in the garden of the Horticultural Society, from seeds given to the Society by Dr. Royle, said to be collected in Cashmere, but it is frequently amongst the collections from the north of India, and was once raised from seeds marked Œnothera Frazeri from Cashmere.

12



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* ISMĒNĒ virēscēns.

Stalk-flowered Ismene.

HEXANDRIA *MONOGYNIA.*

Nat. Ord. AMARYLLIDACEÆ.
ISMENE. *Botanical Register, vol.* 20. *t.* 1665.

I. *virescens;* foliis lætè viridibus erectiusculis acutis basi longè vaginantibus, scapo ancipiti, ovario brevi-pedunculato, tubo laciniis subæquali, coronæ lobis petalis brevioribus rotundatis dentatis.

This plant flowered last July in the garden of the Horticultural Society, having been received among other bulbs from Cusco, where it was found by Mr. Pentland. It appears to be very nearly allied to Mr. Herbert's I. pedunculata, but the tube is longer, there are no green stripes upon the coronet, and the leaves do not appear less sheathing at the base than in *I. Amancaes.*

The flowers, although greenish white, have an agreeable lemon-like fragrance.

The following are Mr. Herbert's directions for the cultivation of the species of Ismene;

"Absolute rest in winter is essential to this genus, which delights in very light sandy soil; its cultivation is easy when those two requisites are observed. Amancaes seems to thrive best in pure white sand, at least in the vicinity of the bulb. I have flowered it in the open ground by putting a pot full of white sand with the bulbs into the border. Calathina is less particular as to soil, and pedunculata is hardier than either, vegetates in a lower temperature, and flags sooner in hot weather. They should be planted in a border of light compost in April, and the bulbs must be taken up when the leaf is cut by frost in November or sooner, without breaking off the thick fleshy fibres which will endure through the winter after the bulbs are taken off. They must be put in a box or large pot, and covered with dry sand or earth, and kept quite dry till the following April or May. If Amancaes be set in the stove at the beginning of May, and watered, it will flower immediately, and should be removed into a greenhouse as soon as the first bud is ready to expand. The sulphur-coloured mule may be forced as easily. It is a beautiful plant, and has produced flowers in which the expansion of the cup was three and a half inches, and of the limb five and a half. Its ovules, three in a cell, are bold, and its pollen seems fertile. The seed of Ismene is large and round, and vegetates immediately in a remarkable manner, forming a bulb as big as itself (sometimes much bigger) far under ground without pushing any leaf. As soon as the seed rots, the young bulb must be left without water, till the next spring. A person unaware of the peculiarity of this genus and Choretis, when he found the seed rotten, would be likely to throw away the earth without suspecting the formation of the bulb near the bottom of the pot. If the seedlings of Amancaes are grown in loam, I believe they will be twenty years before they attain size to flower; in pure white sand, or a very sandy compost, I think they may flower the third. I have a mule seedling from Amancaes, from seed of last year, which is now near two feet high with five leaves. The seedling bulbs raised this year from the mule, are larger than the natural Amancaes from seed that was sown at the same time."

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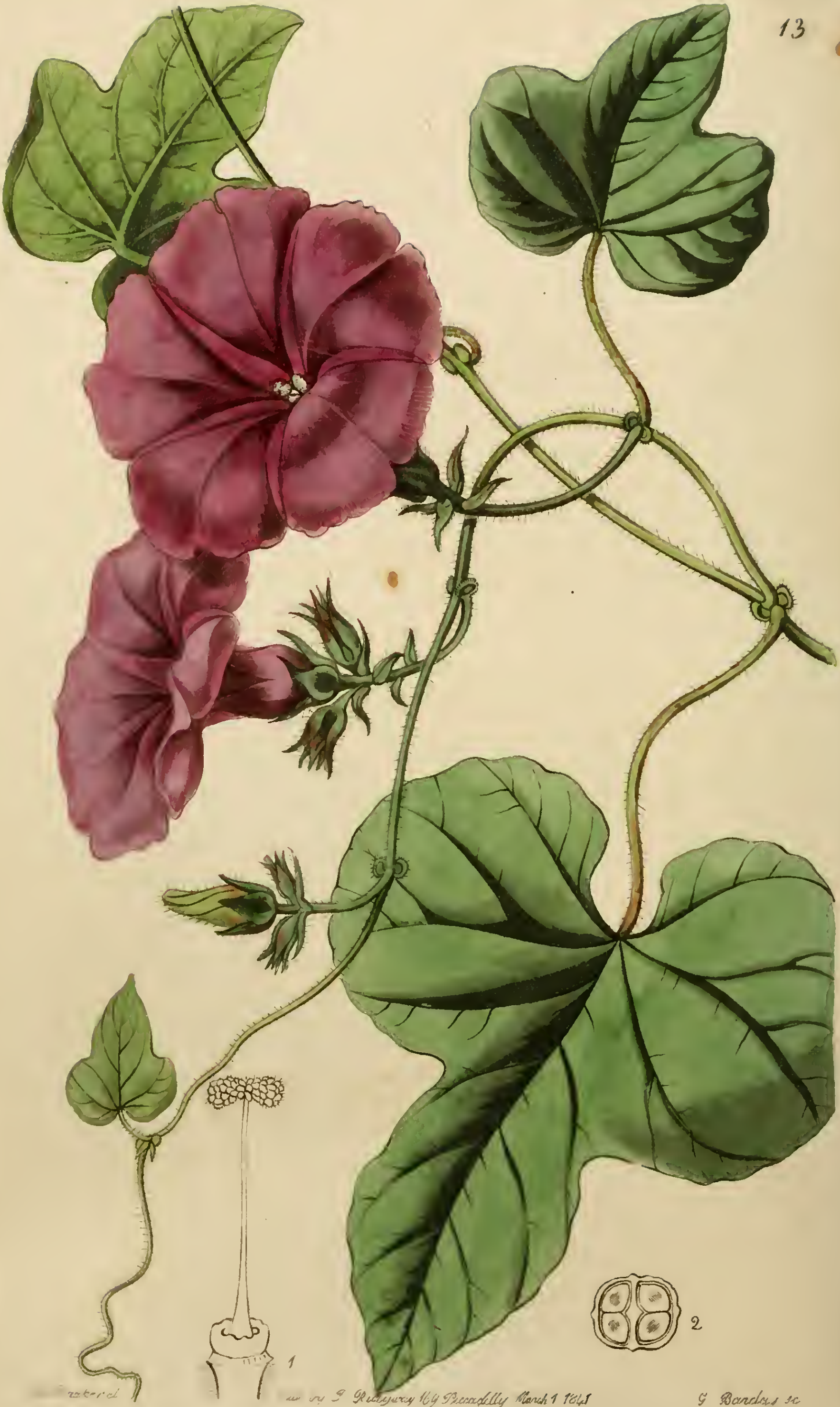
* See folio 1665.

The species now figured is a greenhouse bulb, grows well in a mixture of loam, peat, and sand, and flowers from June to August. The leaves wither soon after flowering, when it must be kept perfectly dry until spring. It will then begin to send forth young leaves, and remind the cultivator that it requires a plentiful supply of water to perfect its growth.

It is easily multiplied by offsets which it produces in abundance.

13



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IPOMŒĂ ficĭfŏlĭa.

Fig-leaved Ipomœa.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ.

IPOMŒA. *Botanical Register, vol.* 21. *fol.* 1794.

I. *ficifolia ;* piloso-scabra, foliis trilobis: lobis lateralibus rotundatis intermedio angustiore et productiore acuto, pedunculis subtrifloris, sepalis acutis nigro-hirsutis, tubo corollæ limbo breviore. *Bot. Reg.* 1840. *misc. no.* 221.

Tuberosa, *volubilis, subpilosa.* Foliorum *lobi laterales rotundati, nunc in acumen producti.* Calyx *villosus.*

The native country of this beautiful plant is unknown. It was raised from seeds at Messrs. Salter and Wheeler's Nursery, Weston Road, Bath, and by them communicated to us last November. Possibly it is one of the fine things for which we are indebted to residents at Buenos Ayres.

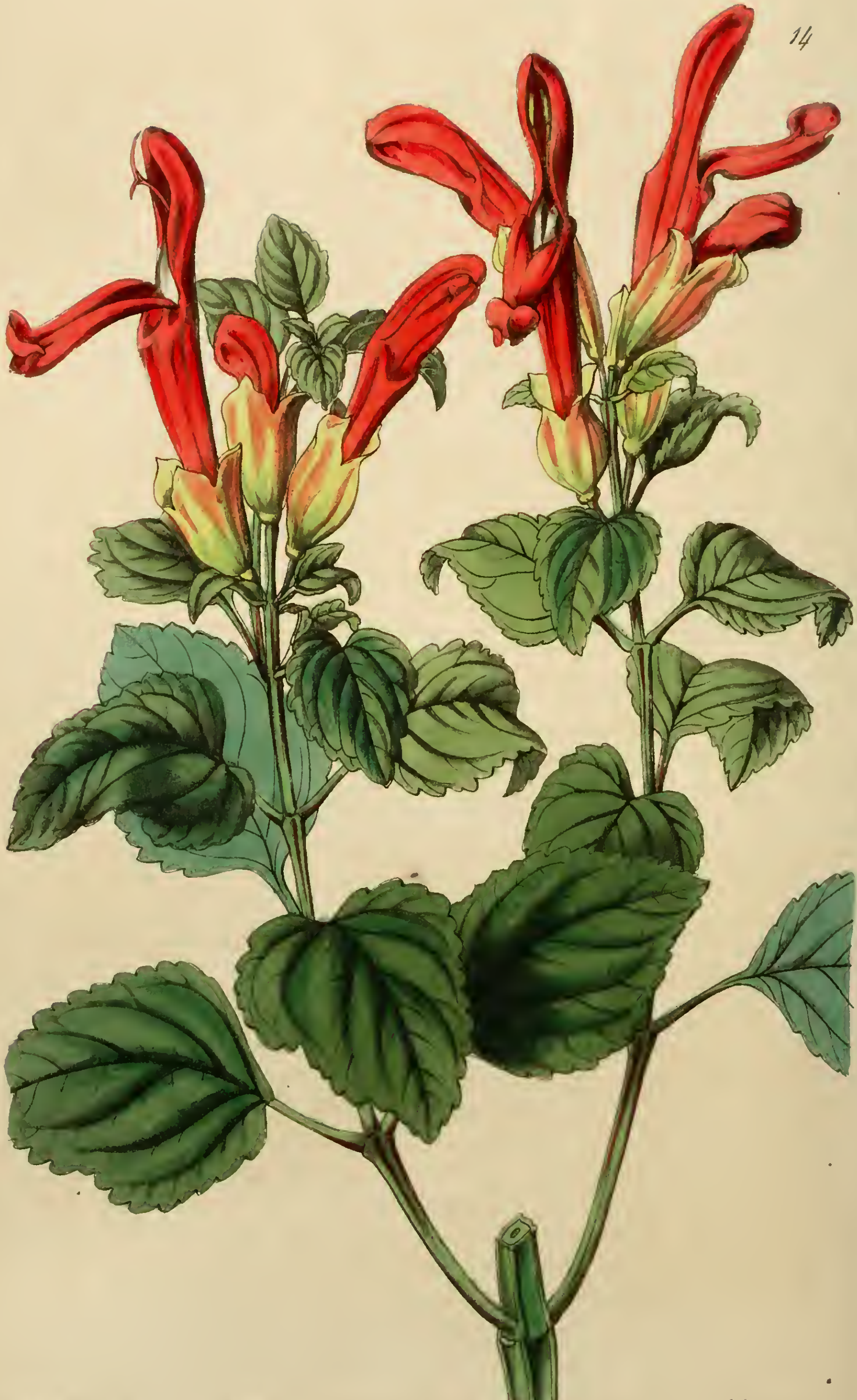
Mr. Wood, the foreman in the plant department of the above mentioned Nursery, informs us, that when little more than twelve months old it produced nearly 500 flowers upon a cylindrical wire trellis two feet high. In fact its disposition to blossom to this unusual degree, is one of the circumstances that more particularly recommend it to the gardener's attention ; especially as it is said to be accompanied by a corresponding diminution of foliage.

It is slightly shrubby, and has a tuberous root.

Mr. Wood thinks it will succeed in the summer against a south wall, and he adds that it thrives under the commonest kind of cultivation. For ourselves, we can only testify to its being a beautiful climber, with rich purple flowers, and an unusually short tube, and that it is readily known out of flower by the side lobes of its leaves being almost semicircular, and only occasionally produced into a point.

March, 1841.

14



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SĀLVĬĂ Rēglă.

The Regla Sage.

DIANDRIA *MONOGYNIA.*

Nat. ord. Lamiaceæ or Labiatæ.

SALVIA. Botanical Register, vol. 14. *fol.* 1205.

S. *Regla;* caule fruticoso, ramis glabris vel sub axillis pubescentibus, foliis petiolatis rotundatis obtusis sinuato-crenatis basi lato-subcordatis coriaceis rugosis supra hispidulis subtùs nervosis pubescentibus, floralibus subconformibus, verticillastris terminalibus paucifloris, calycibus subsessilibus tubulosis coloratis, labio superiore integro dentibusque labii inferioris lato-ovatis acutiusculis, corollâ calyce duplò longiore extùs pubescente, tubo ventricoso, labio superiore erecto, inferiore vix longiore lobis lateralibus oblongis reflexis medio rotundato integro deflexo, connectivis posticè edentulis breviter productis deflexis obtusis longitudinaliter connatis, stylo glabro exserto apice subulato bifido. *Bentham gen. & sp. lab. p.* 288.

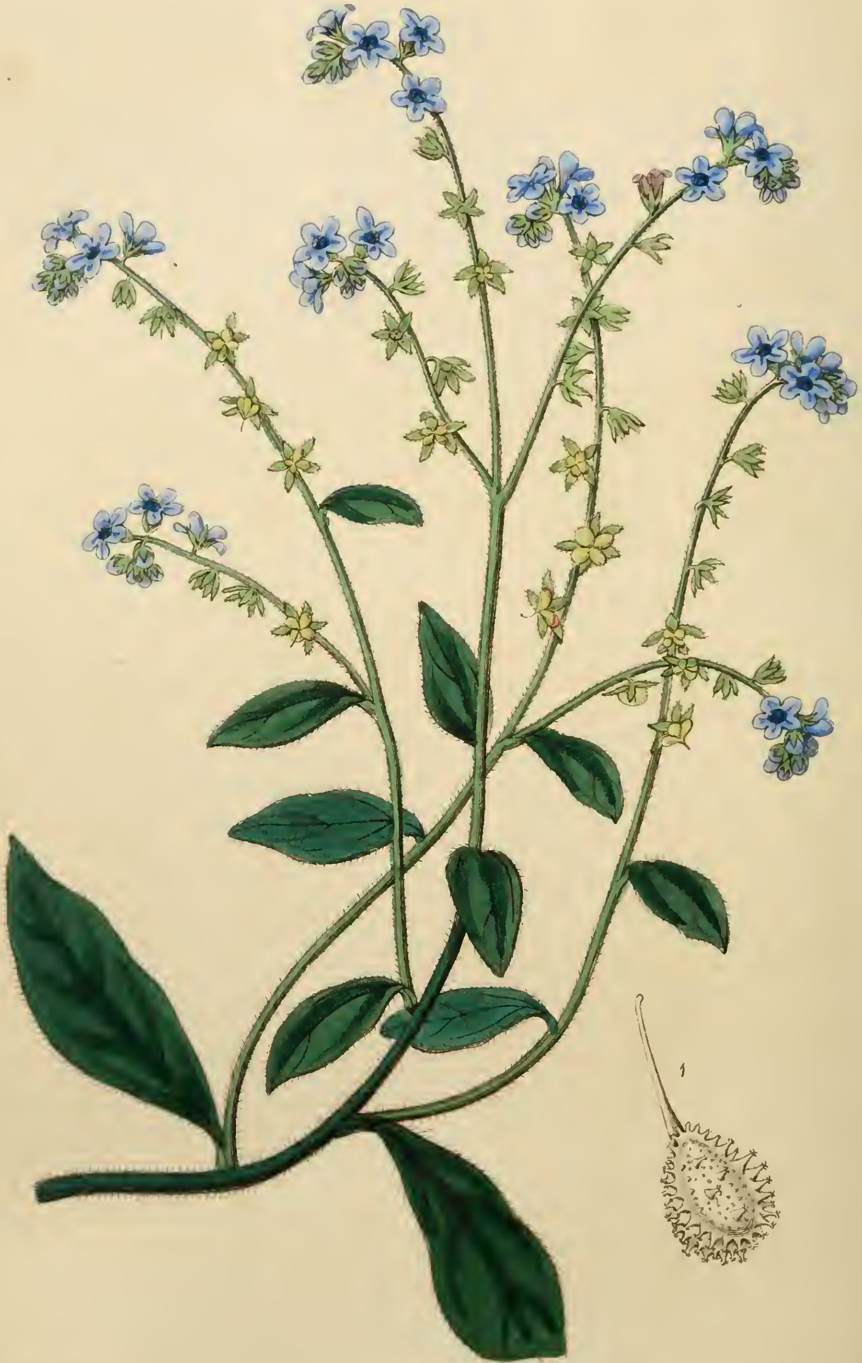
S. Regla. *Cavanilles Icones, vol.* 5. *p.* 33. *t.* 455.

S. deltoidea. *Pers. synops.* 1. 28.

For this fine Mexican sage we are indebted to Mr. Hartweg, who found it at Aguas calientes, and sent it to the Horticultural Society. It had previously been found by Spanish collectors at Vilalpando, and at a place called Regla, after which the species is named.

Mr. Hartweg describes the wild plant as a shrub four or five feet high, and from his specimens it would appear that its shrubby habit is of a very decided character; in our collections it has not however at present taken this on, except in a slight degree. The only specimens that have flowered were grown in a greenhouse in the garden of the Horticultural Society, and afterwards removed to the great iron conservatory, where they were certainly beautiful, although the number of flowers open at the same time was inconsiderable. As the specimens are older and the management of the species is better understood, the growth may be expected to be more compact, and the bloom proportionately abundant.

No particular treatment is required. The plant seems to grow freely under common circumstances. We however fear it will not become an out of doors decoration, because, like many other Mexican plants, it flowers too late in the season. In a greenhouse it is a charming plant.



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15

CYNOGLŌSSŪM glochidiātūm.

Burry Houndstongue.

PENTANDRIA *MONOGYNIA.*

Nat. ord. BORAGINACEÆ.
CYNOGLOSSUM. Botanical Register, 1839. *fol.* 36.

C. *glochidiatum;* (Wall. cat. no. 922.) pilosum, divaricato-ramosum, foliis oblongis acuminatis basi angustatis sessilibus, racemis elongatis tenuibus, floribus subsessilibus, nucibus parvis marginatis aculeis brevibus uniserialibus paucisque sparsis. *Bentham in Royle's Illustr. p.* 306.

Herba *biennis, canescens, diffusa, ramis intertextis.* Folia *superiora sessilia.* Racemi *aphylli.* Flores *parvi, lætè cœrulei.* Glochides *nucùm marginales,* 1-3 *seriales.*

Among the many forms of vegetation which give the aspect of Europe to the mountains of India, are several species of Cynoglossum, which remind the traveller of the Forget-me-Not of his western home. Of these one of the prettiest when gathered is the species now figured, whose bright and joyous looking flowers are exceedingly gay; unfortunately however the plant itself is a straggling dull green entangled herb, so that it can only be grown in the borders of a shrubbery, or in some situation where the herbage may not offend the eye. Like all its order, the flowers will continue to open for a long time in a glass of water.

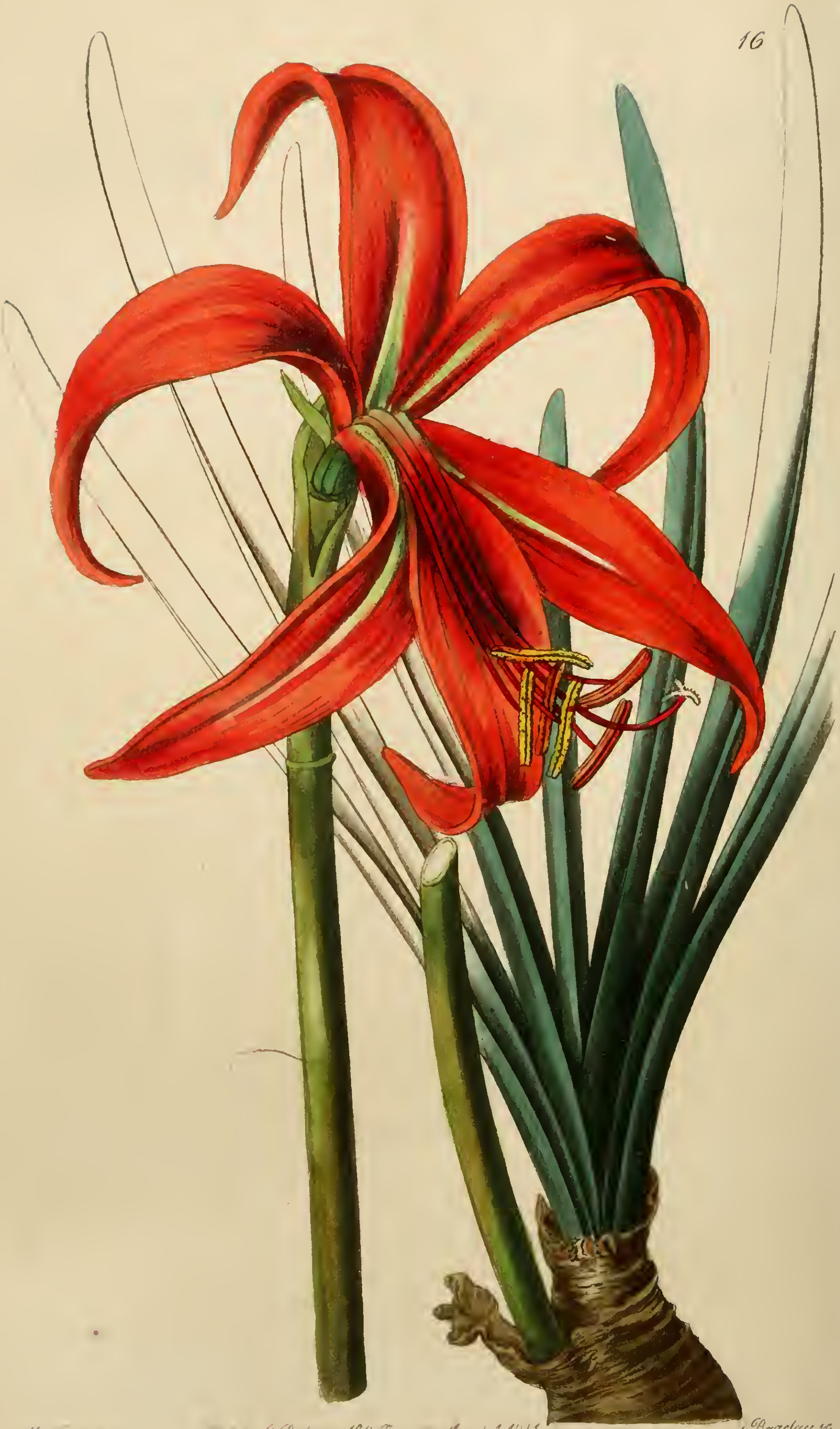
Fig. 1. represents a nut with the barbed bristles, called by botanists *glochides,* whence the name of the species.

It is a hardy biennial, growing about one and a half or two feet high in any good soil, and flowering from July until destroyed by the effects of winter.

The seeds should be sown about the end of May or beginning of June, in the open border, where they may remain without protection, if in rather a dry situation; they suffer more from wet than from cold.

The plant was raised by the Horticultural Society from seeds received from Dr. Royle, and appear to sport into two or three varieties.

16



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SPREKĔLĬĂ glāucă.

Glaucous Jacobean Lily.

HEXANDRIA *MONOGYNIA.*

Nat. Ord. AMARYLLIDACEÆ.
SPREKELIA. *Botanical Register,* 1840. *t.* 33.

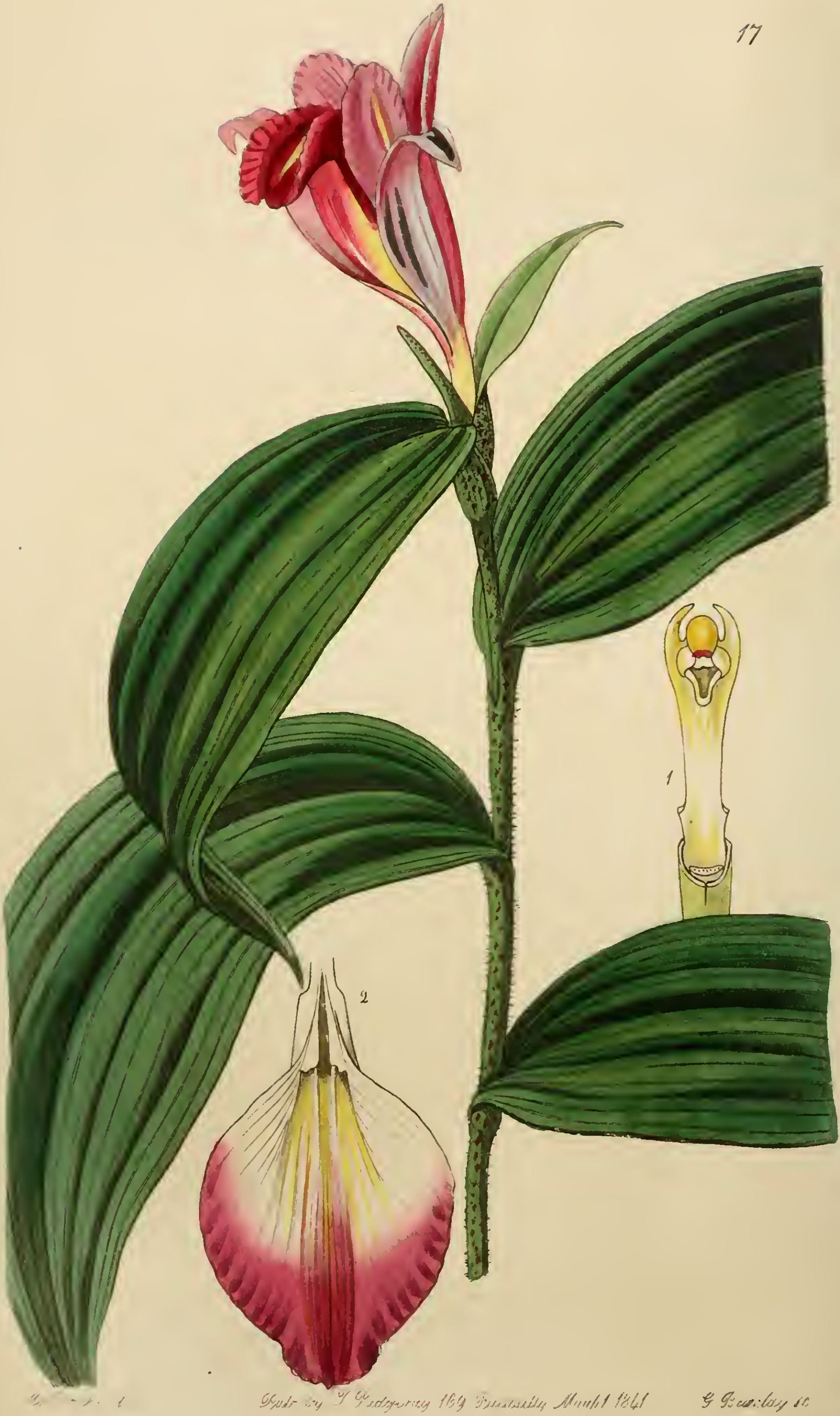
S. *glauca;* foliis linearibus glaucis, floribus solitariis cernuis, sepalis medio albo-vittatis lateralibus parùm convolutis petalisque lanceolatis apice recurvis subæqualibus. *Botanical Register,* 1840, *misc. no.* 104.

This is evidently of the same genus as the old favourite Jacobean Lily, or Amaryllis formosissima, but it differs from it in having smaller and rather paler flowers, and a very glaucous foliage.

Mexico and the neighbouring countries to the south, seem to be the haunt of the genus, for the old kind was originally obtained from Guatemala, and this comes to us from Mexico, where Mr. Hartweg discovered it. It flowered in the garden of the Horticultural Society in May, 1840.

In that establishment it is grown in turfy loam rendered free by a mixture of peat, leaf mould and sand. In autumn, after the leaves and flowers have decayed, it is either taken out of the pot and laid upon a dry shelf, or if suffered to remain, kept quite dry until the following spring. In the growing season the temperature in which it is placed is a little higher than a common greenhouse. It is propagated by offsets.

Probably the treatment applicable to the common Sprekelia would suit it as well. Of this Mr. Herbert writes as follows:—“The bulbs are perfectly hardy and appear to like a low temperature, but they will not flower willingly unless they have a season of drought. They succeed well against the wall of a stove in the open ground, flowering in the spring and sometimes again in the autumn, if the summer has been very dry. They rarely blossom if watered through the winter in a greenhouse; but if kept dry and warm for a few months, they will flower as soon as they are watered in the spring.



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[*] SOBRĀLĬĂ sēssĭlĭs.

Sessile-flowered Sobralia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § ARETHUSEÆ.

SOBRALIA. Fl. Peruv. Perianthium maximum, petaloideum, subæquale; sepalis patentibus vel reflexis, petalis erectis. *Labellum* cucullatum, columnam amplexans, basi angustatum, disco plicato-barbatum, apice bilobum. *Columna* elongata, marginata, clavata, apicis trifidi lobo medio cucullato antherifero. *Stigma* marginatum, basi gibbere gemino nectarifero. *Anthera* terminalis, stipitata, semiquadrilocularis. *Pollinia* farinacea, 4, compressa, posticè cohærentia et contortuplicata, ecaudiculata.——*Herbæ* Americæ *æquinoctialis, terrestres, simplices, sæpe triorgyales, foliosissimæ;* foliis *plicatis;* floribus *racemosis terminalibus, vel axillaribus geminis, niveis, roseis, sanguineis, violaceisve. Omnes ferè species loca rupestria, sicca, aprica, calidissima eligunt, dumeta sæpius ampla formantes.* Gen. & Sp. Orch. p. 430.

S. *sessilis;* caule foliisque subtùs nigro-pubescentibus, foliis sessilibus oblongo-lanceolatis acuminatis 2 terminalibus squamæformibus acuminatis herbaceis, floribus sessilibus, labello rhombeo-oblongo glabro lamellis 2 intramarginalibus pone basin. *Bot. Reg. misc.* 1841. *no.* 11.

Some of the finest Orchidaceæ known are species of this genus, which inhabits Peru, Brazil, Mexico, Demerara, and no doubt the intermediate districts. They are like Evelynas in their manner of growth, or to use a more familiar comparison, they resemble reeds loaded with large red, or white, and often fragrant flowers which always grow from the extremity of the reed among the large plaited grassy leaves. One species, S. Liliastrum, is figured in the Sertum Orchidaceum, from drawings made by Mr. Schomburgk, and has most lovely white or rosy blossoms, but it does not exist in our gardens. Another species with stems from twelve to twenty feet high is "Flower of Paradise" of the Peruvians, and bears large flowers, white without and violet within, smelling of Wallflowers. Another has the inflorescence of a Heliconia. They are all said to love dry sunny rocky places, where the heat is excessive, and where they often form large thickets.

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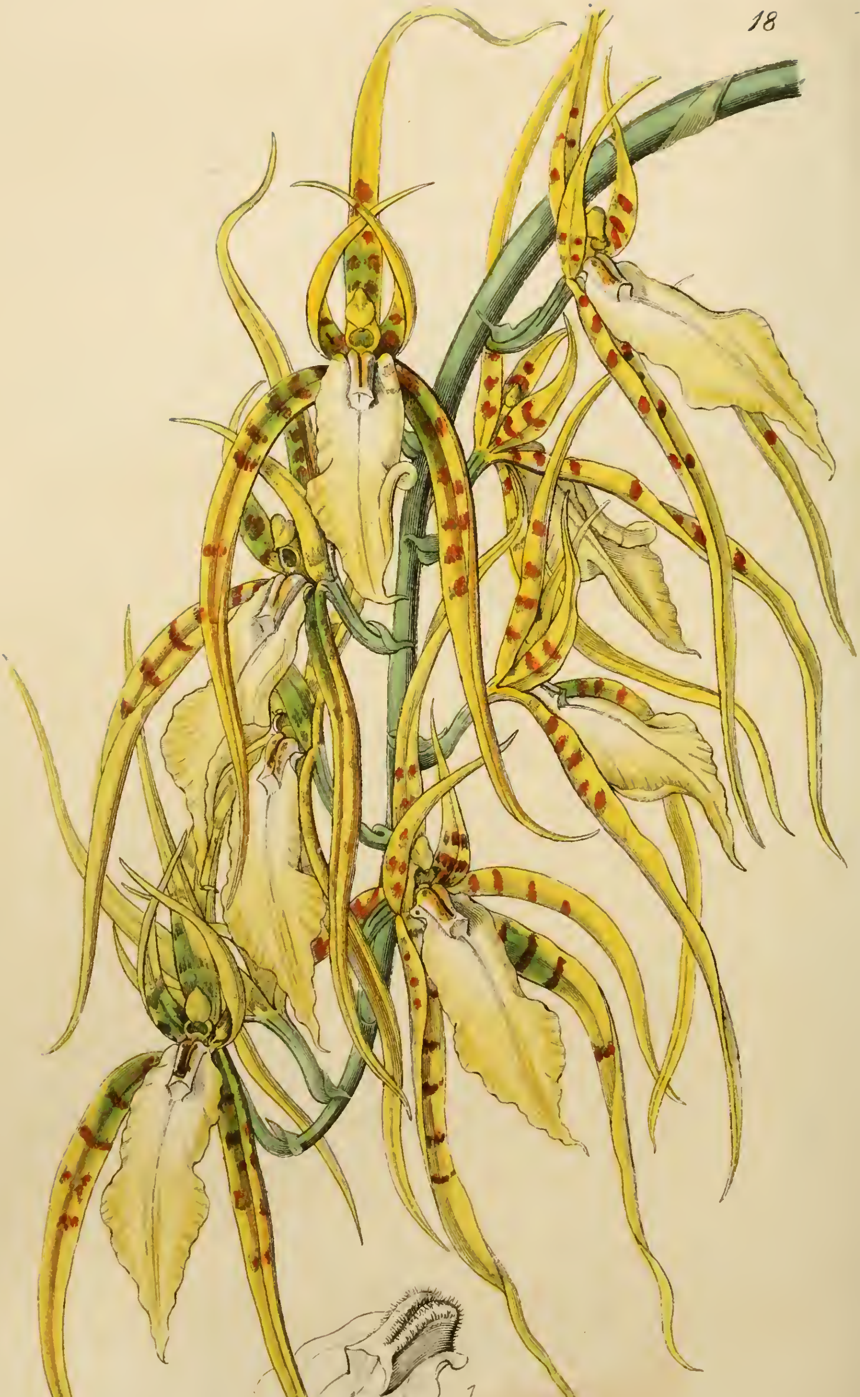
[*] So called by the authors of the Flora Peruviana, after Don Francisco Martin Sobral, a botanist of their acquaintance.

That now figured is the least pretty of any we know. It was flowered by Messrs. Loddiges last December, having been received from Mr. Schomburgk.

I previously possessed wild specimens of it, and they show that the garden plant is quite as perfect as in its native meadows. Its stem is covered with small black hairs and stiff-ribbed taper-pointed leaves. From the summit of the stem there appears a single rose-coloured flower, which is very fugacious. The lip is many degrees darker than the other parts.

Fig. 1. represents the columns and anther; fig. 2. exhibits the inside of the lip. I had no opportunity of examining the former.

18



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BRĀSSĬĂ Lawrenceānă.

Mrs. Lawrence's Brassia.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
BRASSIA. *Botanical Register, vol.* 21. *fol.* 1754.

B. *Lawrenceana;* sepalis lateralibus elongatis, labello oblongo apice lanceolato subundulato: callo baseos simplici caualiculato truncato pubescente.

Perhaps no genus of the Orchidaceous order is more worth cultivation than Brassias, for, without a single exception, they are handsome, and very easy to manage; most of them too are sweet-scented. But they are difficult to distinguish from each other, especially those which, like the species now figured, have the lateral sepals much lengthened out.

At first sight, in examining this, one would refer it to *B. macrostachya;* but the sepals are not half so long, and the tumour at foot of the lip is simple and truncated, not sloping forward, and supported by three advanced tubercles.

In like manner *B. Lanceana,* which agrees with it in the truncated tumour, has two tubercles in front of it, and its lateral sepals are much shorter. When dried the sepals of B. Lawrenceana become bright brown, while those of B. Lanceana remain pale yellow.

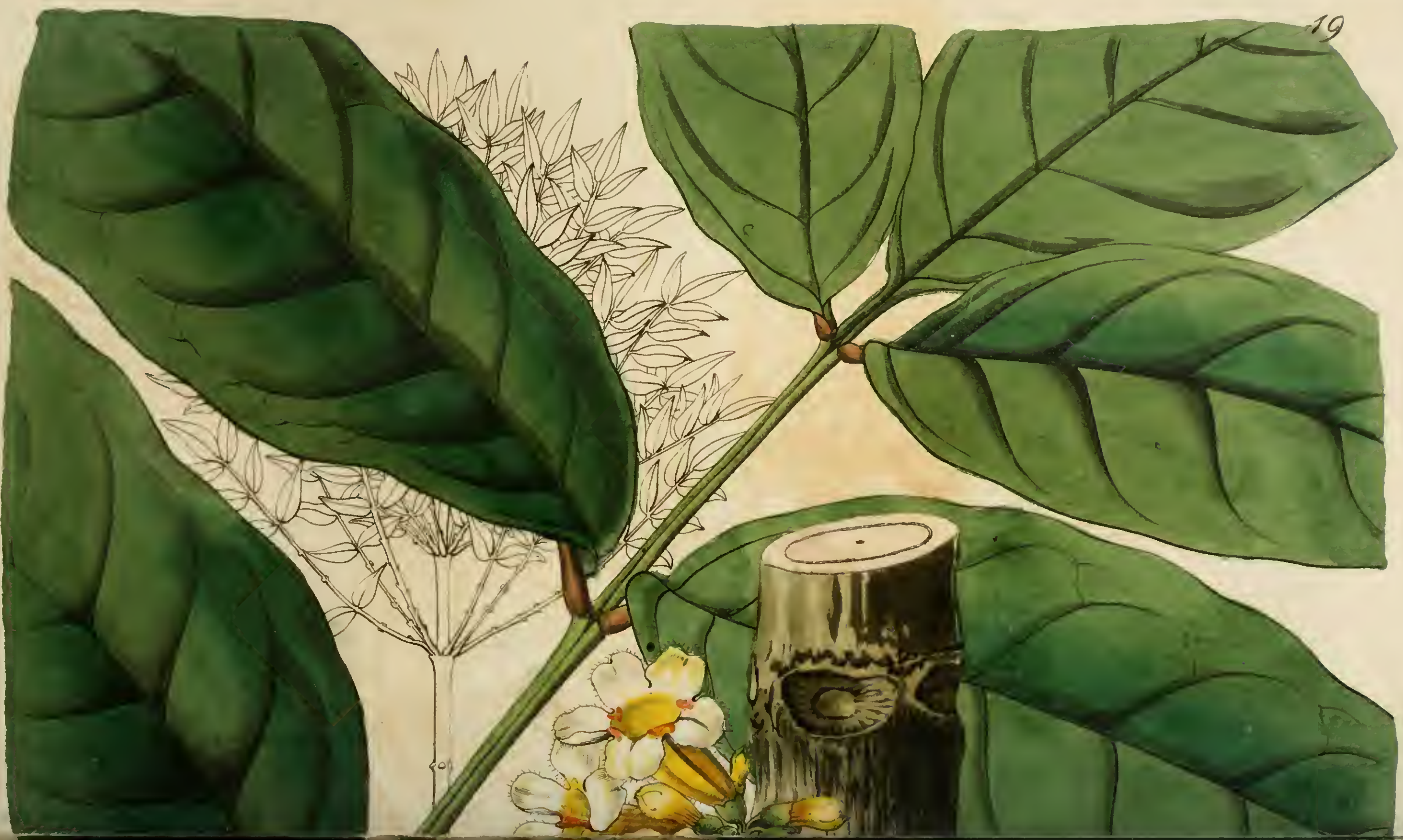
Finally, *B. caudata* has the lip of quite a different form.

We are informed by Mrs. Lawrence that the species is a native of Brazil. It has very sweet-scented flowers.

Fig. 1. represents the hairy tumour at the base of the lip.

Like the other species this requires the heat of the stove, and should be treated in the same manner as Brassia maculata.

It requires a plentiful supply of water at its roots and over its leaves when they are fully formed, but great care must be taken in applying this when the leaves and pseudo-bulbs are young, otherwise they are sure to be damaged, and to decay.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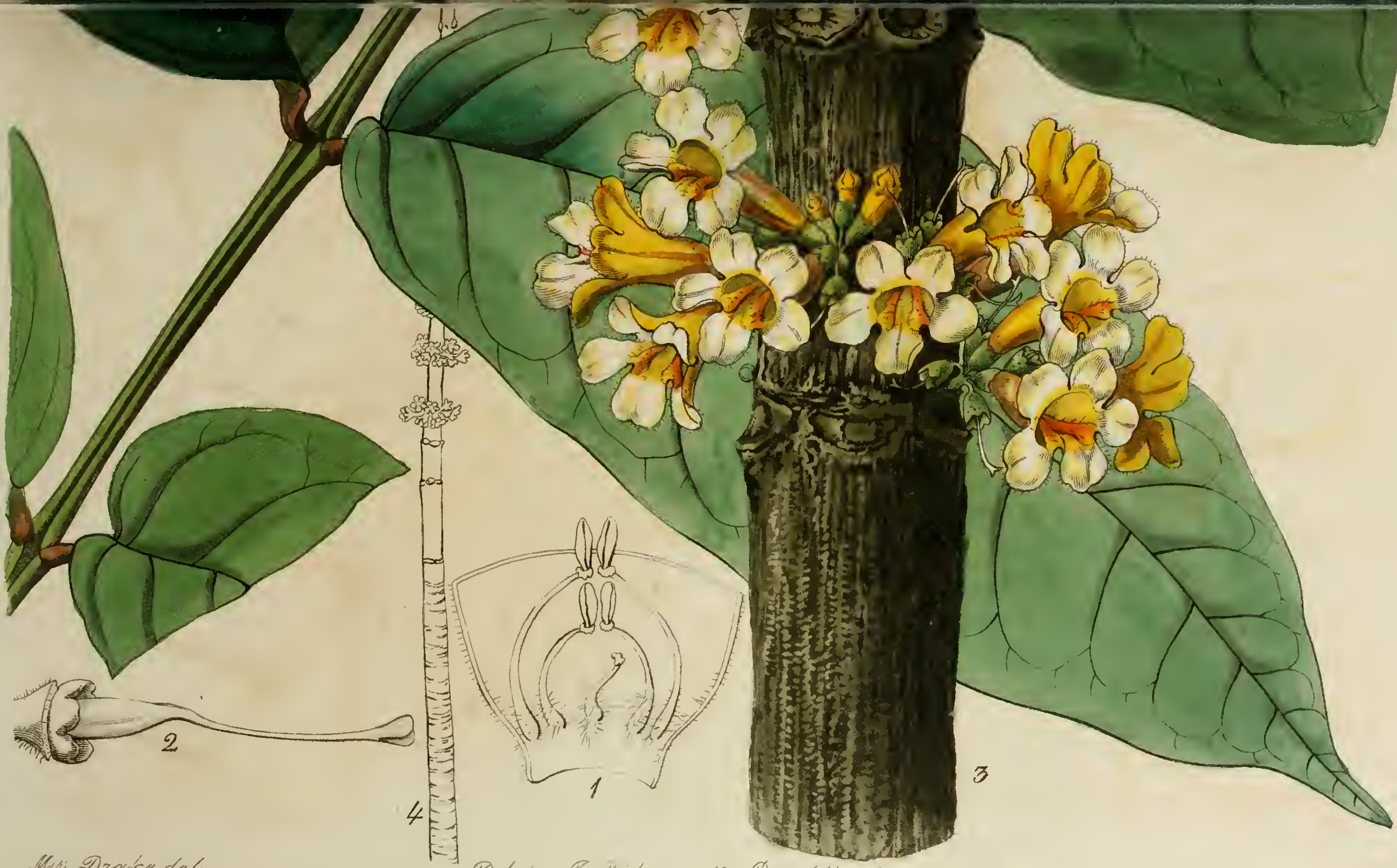

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G Barclay sc

* CŎLĔĂ floribŭndă.

The Yellow Rei rei.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Bignoniaceæ, § Crescentinæ.

COLEA Bojer. *Involucrum* sub-flore nullum. *Calyx* subcampanulatus, 5-dentatus. *Corolla* infundibuliformis, tubo oblongo supernè parùm ampliato; limbi patentis 5-partiti lobis subæqualibus. *Stylus* (filiformis. *Stigma* bilamellatum). *Fructus* carnosus, oblongus, stylo apiculatus, 2 locularis.—— Frutices v. arbusculæ *glabræ*, foliis *oppositis v. verticillatis, impari-pinnatis, 2-00-foliolatis, cum v. absque* stipulis; floribus *lateralibus fasciculatis vel spicatis, vel terminalibus paniculatis.* Meisner genera, p. 301.

C. *floribunda;* foliis verticillatis 8-jugis, foliolis oblongo-lanceolatis acuminatis, fasciculis florum multifloris subsessilibus.
C. floribunda. *Bojer hort. maurit. p.* 220.

Caulis *ultra orgyalis, apice foliosus, simplex, in ligno vetusto floridus.* Folia *magna, pinnata cum impari, suboctojuga, verticillata;* foliolis *oblongo-lanceolatis, acuminatis, coriaceis, glabris, petiolulatis, sex pollices et ultra longis; terminali nunc bilobo.* Flores *in umbellas subsessiles supraaxillares dispositi, pedicellati.* Calyx *campanulatus, obsoletè 5-dentatus, levitèr pubescens, tubo corollæ multò brevior.* Corolla *ferè pollicaris, infundibularis, ochracea, limbo patulo, subregulari, sub sinubus elevato; laciniis emarginatis ciliatis; tubo intus villoso.* Stamina 5, *tubo corollæ duplò breviora; dorsale sterile, fertilibus brevius; par proximum incurvum, antheris approximatis parallelis; proximum omninò simile sed longius.* Antheræ *uniloculares, longitudinaliter dehiscentes: loculo altero obsoleto ad basin fertilis.* Ovarium *annulo carnoso 5-lobo insertum, oblongum, cum stylo filiformi continuum; stigma bilamellatum.*

A native of Madagascar, where, according to Bojer, it inhabits the forests all along the east coast, around Foul Point and in Anton Gil bay. It is a shrub, called by the Malgaches *Rei Rei.*

It flowered in August last, probably for the first time in Europe, in the collection of his Grace the Duke of Northumberland at Syon. It is a stove plant with a stately aspect, and singular habit, in consequence of the stem, which is seven or eight feet high, being perfectly simple, covered with the noble pinnated leaves at the upper end only, and bearing the flowers on the old wood from just above the places whence the leaves of previous years had fallen. The flowers are of a bright yellow ochre colour with a very pale border, and produce a pretty effect.

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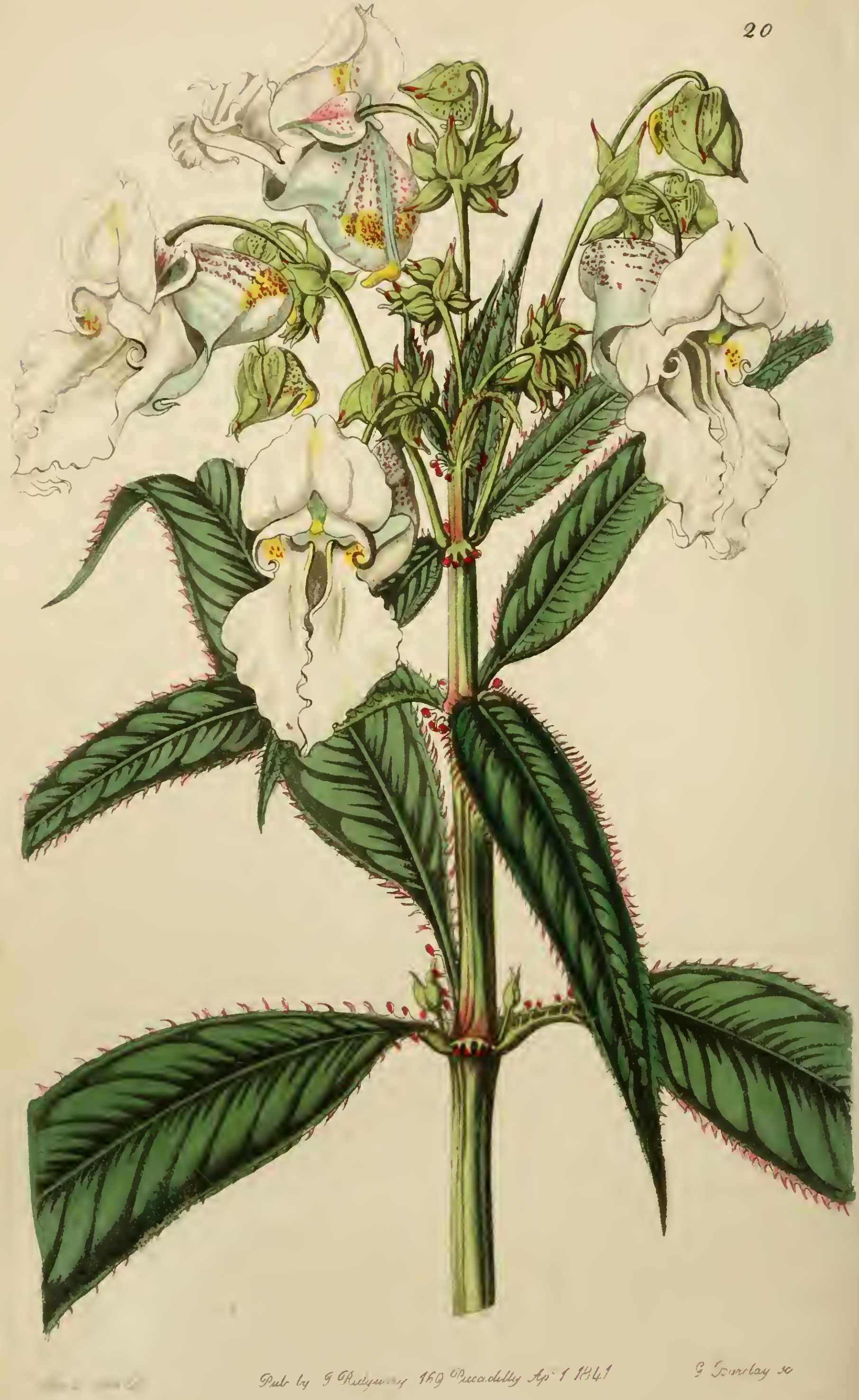
* Named after General Sir G. Lowry Cole, Governor of the Mauritius.

Fig. 1. represents the inside of a corolla, showing the very peculiar stamens ; 2. is the pistil, seated in the five-lobed cup; 3. is a piece of the old wood and flowers, natural size ; 4. is a reduced view of the entire plant.

The Bignoniaceous order, although we know so little of it in this country, has, like almost every other old group of plants, grown up so as to have lost all resemblance to its former self, since it was first suggested. What was once scarcely more than a genus of 18 or 20 species has become a large natural order, in which nearly 400 species are arranged under 46 genera. Of these more than three-fourths are American, and none actually European ; Asia contains thirty or forty in the tropical districts, and Africa rather fewer. In a recent attempt at reducing this mass into order, M. DeCandolle has divided it into two parts, the Bignonieæ and the Crescentinæ. " Under the first of these tribes," he says, " I unite all the Bignoniaceæ whose fruit splits into valves, and whose seeds are winged ; under the second are placed those whose fruit does not open, and whose seeds are wingless. These characters are important and natural. In fact, in the whole vegetable kingdom winged seeds are never found in a seed-vessel that does not burst. And this is a fresh instance of the necessity of those correspondences in organs of which we find so many instances in the animal kingdom. Wings, which are intended to assist the dispersion of seeds through the air, cannot exist in fruits which do not naturally burst, but which remain constantly closed, allowing their seeds to escape by the decay of the tissue, or even to germinate in the seed-vessel itself. This division of the Bignoniaceous order into two tribes, founded upon both anatomical and physiological characters, appears then to be perfectly natural; it is indeed not improbable that the Crescentinæ may be regarded as a family, when they shall be better known.——At present this division consists of but 21 species. Its fruit is fleshy, leathery or woody, indehiscent, and the species are very rarely climbers; for out of the eight genera that compose the tribe, there is but one that has the latter habit. Perhaps also the Crescentinæ differ from Bignonieæ by their fleshy, not leafy, cotyledons ; at least this character is indicated by the younger Gærtner in *Crescentia cucurbitina*, the only species of the tribe the seeds of which are well known."

20



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IMPĂTĬĒNS cāndĭdă.

White Balsam.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Balsaminaceæ.
IMPATIENS. *Botanical Register*, 1840. *t.* 8.

I. *candida;* caule erecto, foliis verticillatis angustè lanceolatis acuminatis argutè serratis basi utrinque glandulosis, pedunculis terminalibus multifloris, sepalo dorsali inermi emarginato, calcare brevi incurvo, petalorum biloborum laciniâ alterâ nanâ cirrhatâ alterâ lanceolatâ acuminatâ crispâ. *Bot. Reg.* 1840. *misc. no.* 204.

Caulis *orgyalis, strictus, ramosus, succosus, obtusè quadrangulus.* Folia *ternatìm verticillata, lanceolata, acuminata, petiolata, denticulis roseis secus petiolum glandulosis fimbriata; glandulæ quædam conformes sed majores etiam inter petiolos interjacent.* Umbellæ *terminales, multifloræ, nutantes.* Involucra *sub-pentaphylla; foliolis ovatis acuminatis pedicellis brevioribus.* Flores *magni, candidi.*

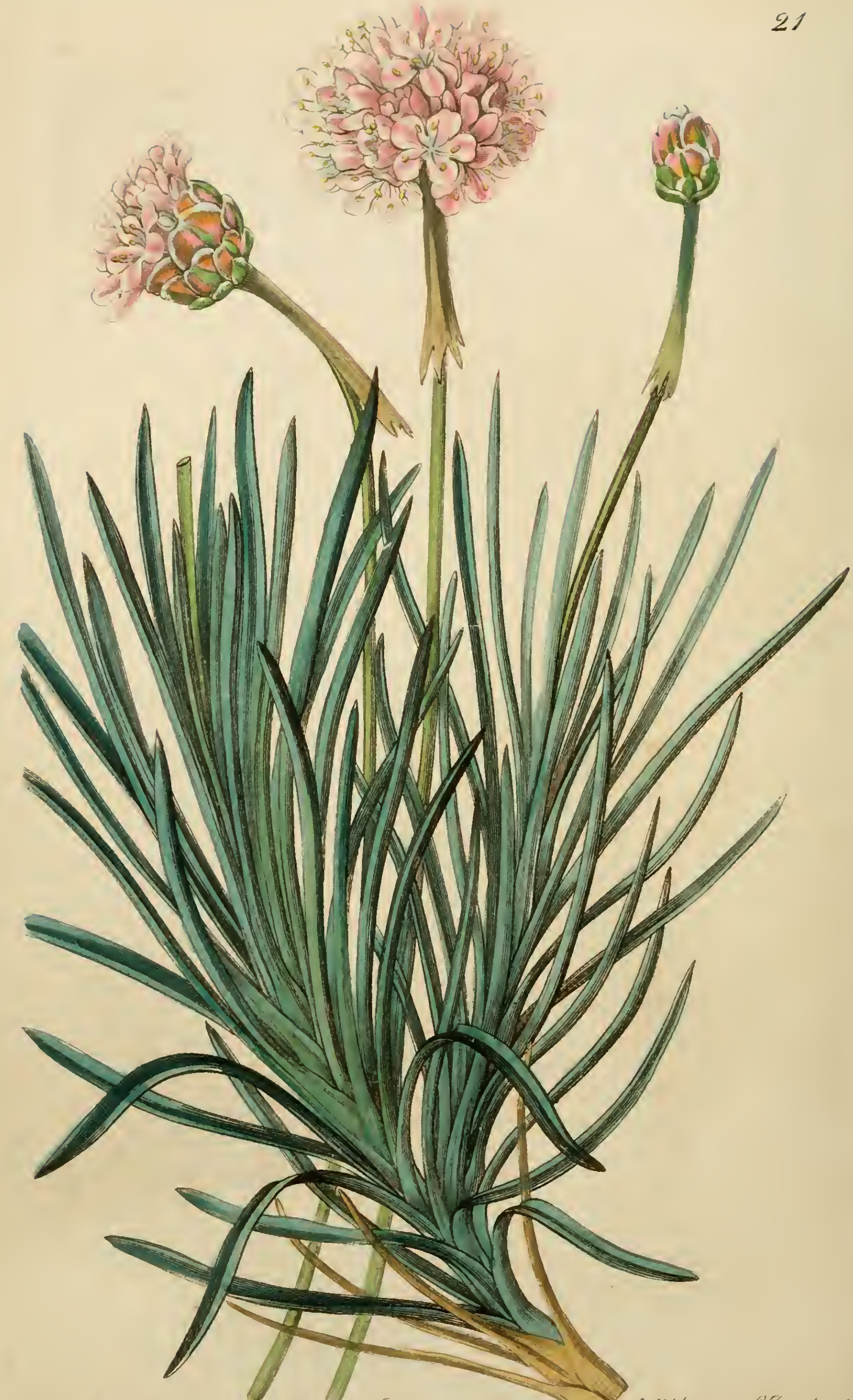
A noble species, inhabiting the Himalayan mountains, whence it has been imported by the Honourable Court of Directors of the East India Company, who presented its seeds to the Horticultural Society.

It forms a stately annual, with brittle succulent stems, about six feet high, bright green, obtusely quadrangular, and branched from the very ground. The leaves are narrow-lanceolate, tapered to a fine point, arranged in whorls of three and edged with very fine crimson teeth. Between each pair of leaves there stands a row of crimson glands, apparently in the place of stipules. The flowers are large, showy, white, a little speckled with crimson, and appear in loose terminal umbels. They are produced in succession during all the months of autumn.

This fine plant, like all the others of the same genus, lately figured in this work, is, properly speaking, a tender annual, requiring to be kept during all the summer in a greenhouse, where it should be *most abundantly* supplied with moisture ; it should indeed be placed in a pan of water. When it is cultivated as a hardy annual it grows indeed and flowers, but it loses all the delicacy and beauty which constitute its principal merit.

Seeds of it have been abundantly distributed by the Horticultural Society.

21



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ARMĔRĬĂ fasciculātă

Fascicled Thrift.

PENTANDRIA *PENTAGYNIA.*

Nat. ord. PLUMBAGINACEÆ.

ARMERIA. *Capitulum* involucratum, vaginâ reversâ, receptaculo paleaceo. *Calyx* infundibuliformis, limbo quinque dentatus, quinque plicatus, margine scariosus. *Corolla* hypogyna, pentapetala; petalorum unguibus basi villis cohærentibus. *Stamina* 5, imis petalorum unguibus inserta. *Ovarium* uniloculare. *Ovulum* unicum, e placenta filiformi liberâ pendulum, anatropum. *Styli* terminales, 5, distincti, apice intus stigmatosi. *Utriculus* membranaceus, monospermus, calyce inclusus, demum a basi multifidâ solutus, calyptræformis. *Semen* inversum. *Embryo* inter albumen farinaceum parcum orthotropus; radiculâ superâ.——Herbæ *perennes, acaules (rarò frutices), in* Europa *mediâ et australi provenientes*; foliis *radicalibus congestis linearibus v. lanceolatis, nervosis; pedunculis scapiformibus monocephalis.* Endlicher genera plantarum, no. 2171.

A. *fasciculata;* caule fruticoso ramoso, foliis linearibus canaliculatis acutis glabris, involucri foliolis obtusis, pedunculo foliis pluriès longiore.
Statice pinifolia. *Brot. fl. lus.* 1. 486.
Statice fasciculata. *Vent. Hort. Cels.* 38. *Willd. enum. hort. Berol.* 1. 334. *DeCand. Fl. Fr.* 3. 420.
Armeria fasciculata. *Römer & Schultes, sp. pl.* 6. 773. *Webb it. hispan. p.* 18.

This fine species is cultivated in some of the gardens near London, under the false name of A. scabra. It forms a pretty bush, looking like a young pine tree, and produces its head of pink flowers in the month of August. During summer it grows very well in the open air; but in winter it must be treated like a Cape plant.

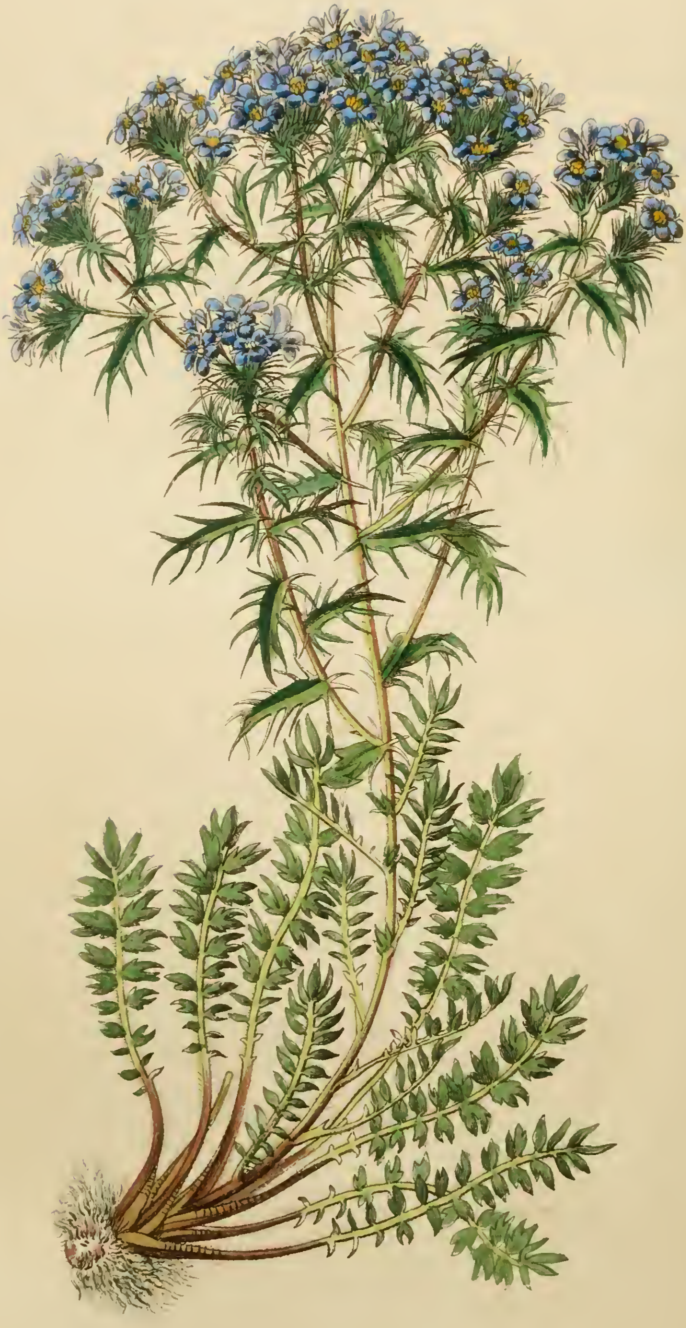
A shrubby Thrift appears at first sight a great anomaly; but if we examine the common species with a little attention, we shall find it as much shrubby as the species now before us; only the branches of its stem are so very short as to be completely hidden by the leaves that overshadow them.

It is a native of the warmer parts of Europe. It has been found on rocks near Ajaccio in Corsica, from whence I have wild specimens; Link and Brotero found it in Portugal on the banks of the Sadâo, near Setubal, and Mr. Barker Webb on the sandy coast near the little town of Ericeira; the latter Botanist also gathered it at the Straits of Gibraltar and near Cadiz.

DeCandolle gives the following account of it in his Flora Francaise. It resembles Armeria vulgaris, but its root is very thick, absolutely woody, brown, striking deep, and almost simple. From its collar rise three or four stems which become about four inches high, and which are entirely covered with straight, linear, firm leaves, a little channelled and entirely smooth, as well as the peduncles. The latter spring from among the leaves near the top of the stem, and bear a head of flowers similar to those of the common Thrift.

In the gardens the plant is much larger than in a wild state. It most nearly approaches *A. maderensis*, which however does not seem to be caulescent, and has broader, flatter and taper-pointed leaves.

22



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* TRIPTĬLĬŌN spinōsūm.

Spiny Triptilion.

SYNGENESIA *POLYGAMIA ÆQUALIS.*

Nat. Ord. ASTERACEÆ v. COMPOSITÆ.—NASSAUVIACEÆ, DC.
TRIPTILION. *Botanical Register, vol.* x. *fol.* 853.

T. *spinosum;* caule berbaceo ad apicem corymboso pubero, foliis pinnatilobatis: lobis in mucronem spinosum desinentibus. *DeCand. Prodr.* 7.51.
T. spinosum. *Ruiz & Pavon syst. veg.* 1. 185.
T. laciniatum. *Willd. sp. pl.* 3. 1626.
Nassauvia spinosa. *D. Don in trans. linn. soc.* 16. *p* 220.

This most beautiful herbaceous plant is a native of Chile, where it appears to be exceedingly common, and is called *Siempreviva*, on account of the permanence of its deep azure flowers. It has long been known to botanists conversant with the Chilian Flora as a most desirable species to introduce, and repeated attempts have been made to secure it, but in vain, till seeds came into the hands of Mr. Frost, the gardener to the Countess of Grenville, at Dropmore; from whom I received beautiful specimens last July. Mr. Frost has favoured me with the following memoranda concerning it.

"The beautiful Triptilion I have now flowered three successive years; I have only been able to get two young plants from seed, as it seeds very sparingly. The plant is herbaceous, with a fleshy root like that of a Dahlia in miniature; the radical leaves spring up in autumn as soon as the flowering stems are cut off, but as they grow in summer they will have died off: the stems rise two feet high, and produce their flowers in corymbs. The plant has increased in size every year; but I have been too choice over it to make an attempt to divide the root, which I think might be done in spring,

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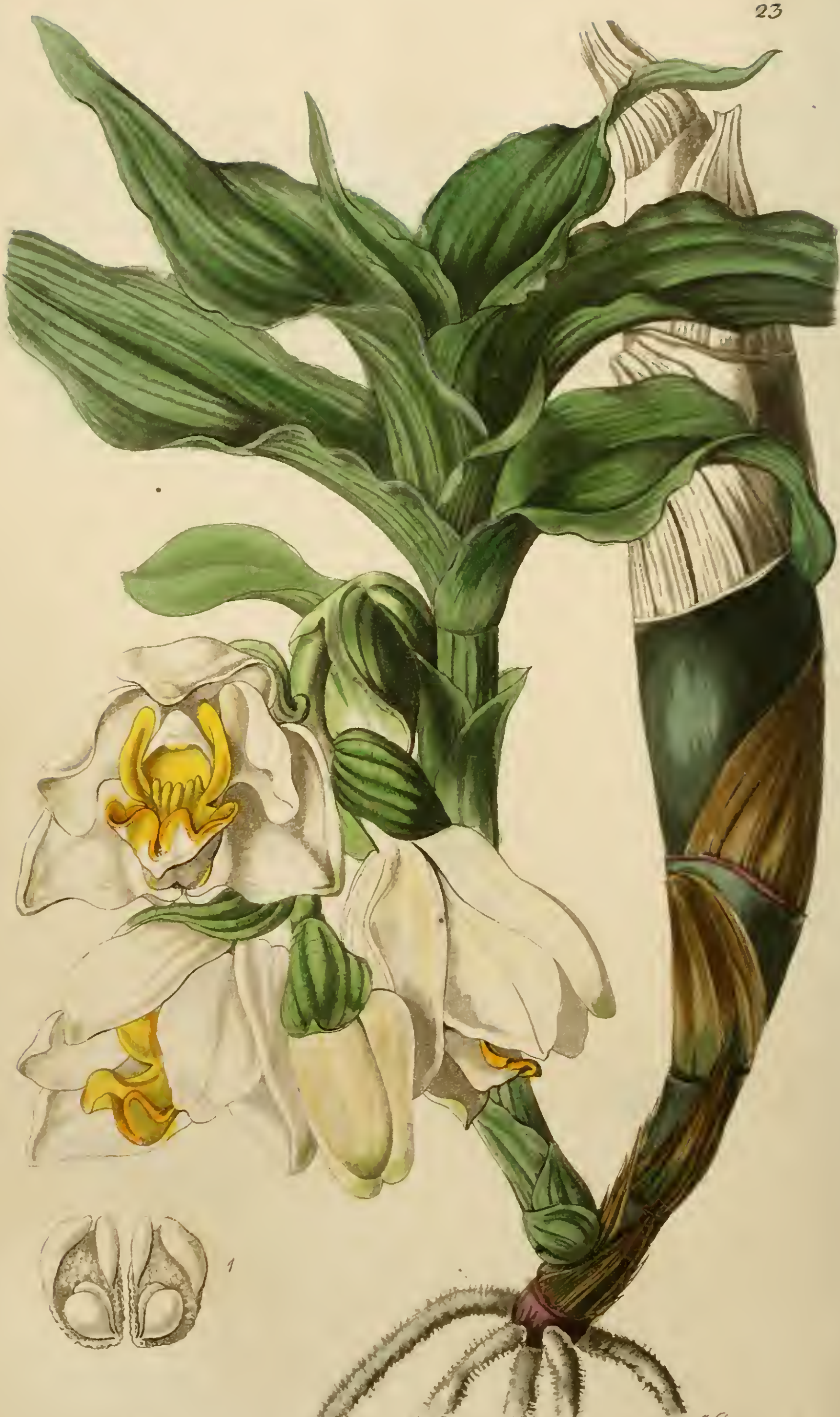
* From τρεις three, and πτιλον a feather, in allusion to the feathery pappus.

(after I have nursed the young plants so as to make sure of not losing it). I hope it will seed more freely this year. I have kept the plant in a greenhouse while I have had it in my possession, but I think a cold pit would be sufficient protection. After flowering, and when the stems are dead, I have generally reduced the ball of earth and put it in a smaller pot for winter, and have shifted it into larger as circumstances required. I have used sandy loam with a small portion of rotten leaves ; and it grows beautifully till the time of flowering, when the leaves die off. Perhaps a colder situation would be then more suitable for it."

23



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* CHYSIS bractescens.

Bracteated Chysis.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDRIÆ.
CHYSIS. *Botanical Register, vol.* 23. *fol.* 1937.

C. *bractescens;* bracteis cucullatis venosis foliaceis ovario longioribus, sepalis petalisque ovatis obtusis, labelli lobis lateralibus obtusis intermedio minore carnoso bilobo hypochilio plicato lamellis 5 carnosis subæqualibus parallelis basi pubescentibus, columnâ latissimâ carnosâ cymbiformi anticè pubescente. *Bot. Reg.* 1840. *misc. no.* 131.

Caules *fusiformes, carnosi, palmares.* Folia *ovato-lanceolata, basi cucullata, imbricantia, undulata, acuminata, subplicata.* Racemus *lateralis, horizontalis, foliis brevior,* 4-5-*florus.* Bracteæ *magnæ, foliaceæ, reticulatæ, obtusæ, concavæ, cucullatæ, laxæ, ovario longiores.* Flores *magni, cerei, candidi, coriacei.* Sepala *lateralia dorsali latiora, obtusa, margine incurva.* Petala *oblonga, erecta, obtusa, basi angustata.* Labellum *intùs luteum, extùs candidum; hypochilii lobis lateralibus erectis rotundatis, cristis* 5 *lævibus parallelis basi pubescentibus, epichilio bilobo nudo complicato.* Columna *latissima, cymbiformis, carnosa, antice pubescens, in pedem producta.*

A fine epiphyte from Mexico, whence it was imported by George Barker, Esq. who flowered it in April 1840. It forms the third of the genus now known, and is readily distinguished by its large white, not yellow, flowers, and great inflated leafy bracts. Its pollen-masses (fig. 1) show yet more strongly than those of the original species the singular structure upon which the genus is founded.

In this, as in most other Orchidaceæ, the most exact attention should be paid to the markings and elevations of the labellum, for they furnish the most constant and exact characters for distinguishing species. Figures or descriptions in which these are neglected, or represented inexactly, are worthless in the present state of our knowledge. In the original *Chysis aurea* there are five principal ridges on the hypochilium, and three minor ones on each side, all downy, and diverging; in the whole nine. In *C. bractescens* there are five equal ridges only, all smooth and parallel; and in *C. lævis*, there are three large somewhat confluent ridges, and one smaller on each side, the whole being smooth. The whole of those species of Orchidaceæ which stand in books without a *precise* description of the tubercles of the lip, require to be re-examined critically.

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* See Botanical Register, vol. 23. fol. 1937.

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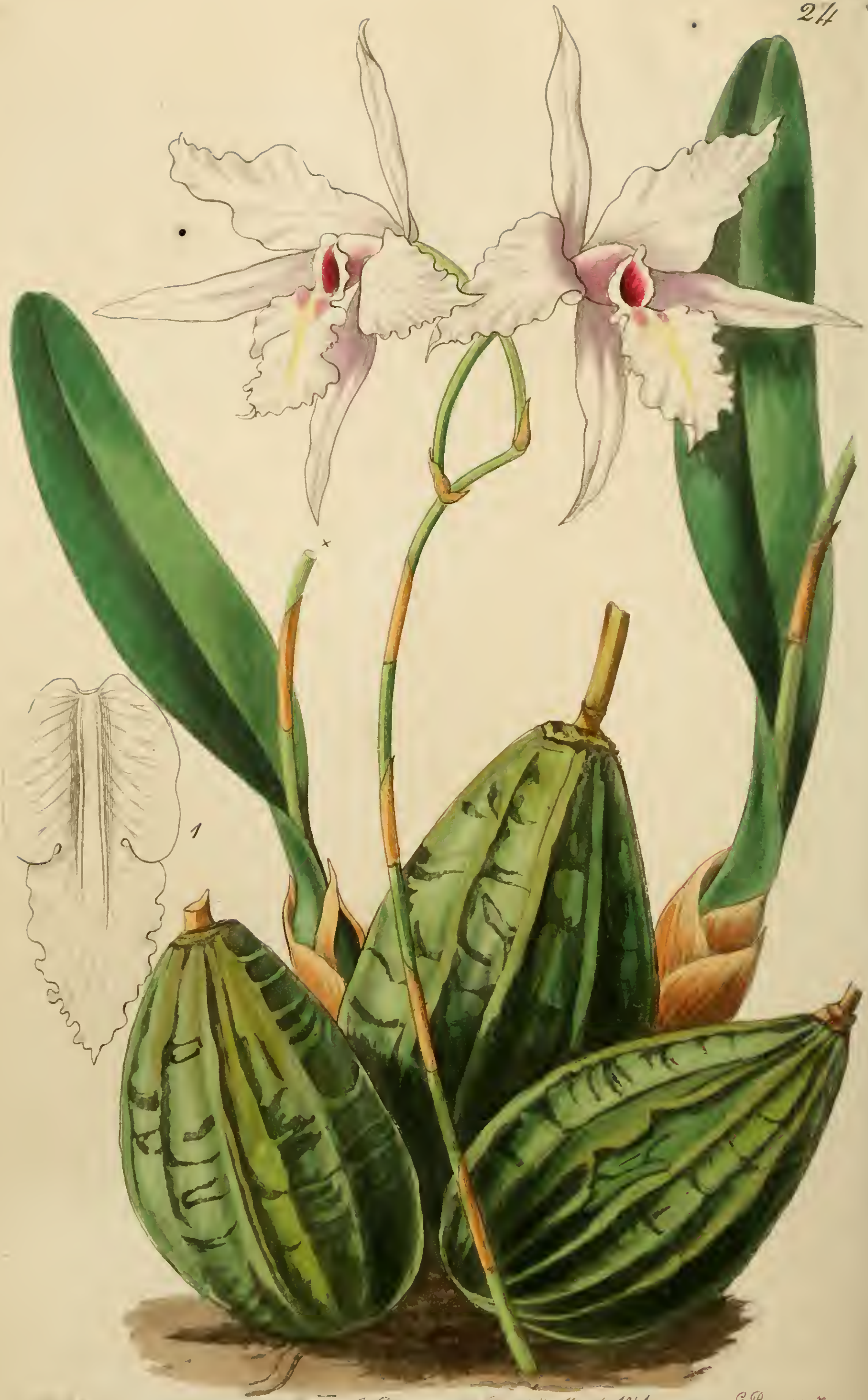

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LÆLĬĂ acuminātă.

Tapering Lœlia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.
LÆLIA. Botanical Register, vol. 21 *fol.* 1751.

L. *acuminata;* pseudo-bulbis ovatis compressis rugosis, foliis solitariis emarginatis scapo erecto brevioribus, floribus corymbosis, bracteis linearibus acuminatis ovario duplò brevioribus sepalis linearibus petalisque lanceolatis undulatis acuminatis, labelli lobis lateralibus rotundatis intermedio lanceolato undulato acuminato.

When a short notice of this plant was published at p. 17 of the miscellaneous notices of this volume, nothing more was known of it than that it had produced a scape with two flowers upon it, in the collections of both Sir Charles Lemon and the Horticultural Society; and that a supposed variety with violet flowers had blossomed in the same way with Messrs. Loddiges.

It now appears, from a native specimen sent home by Mr. Hartweg, that it forms a fine corymb of eight flowers, and that it is in fact so very beautiful that the Guatemalese call it "Flor de Jesus." He found it on the trunk of Crescentia Cujete, the Calabash tree, a favourite haunt of Orchidaceæ, at a place called Retatulen, in the month of December.

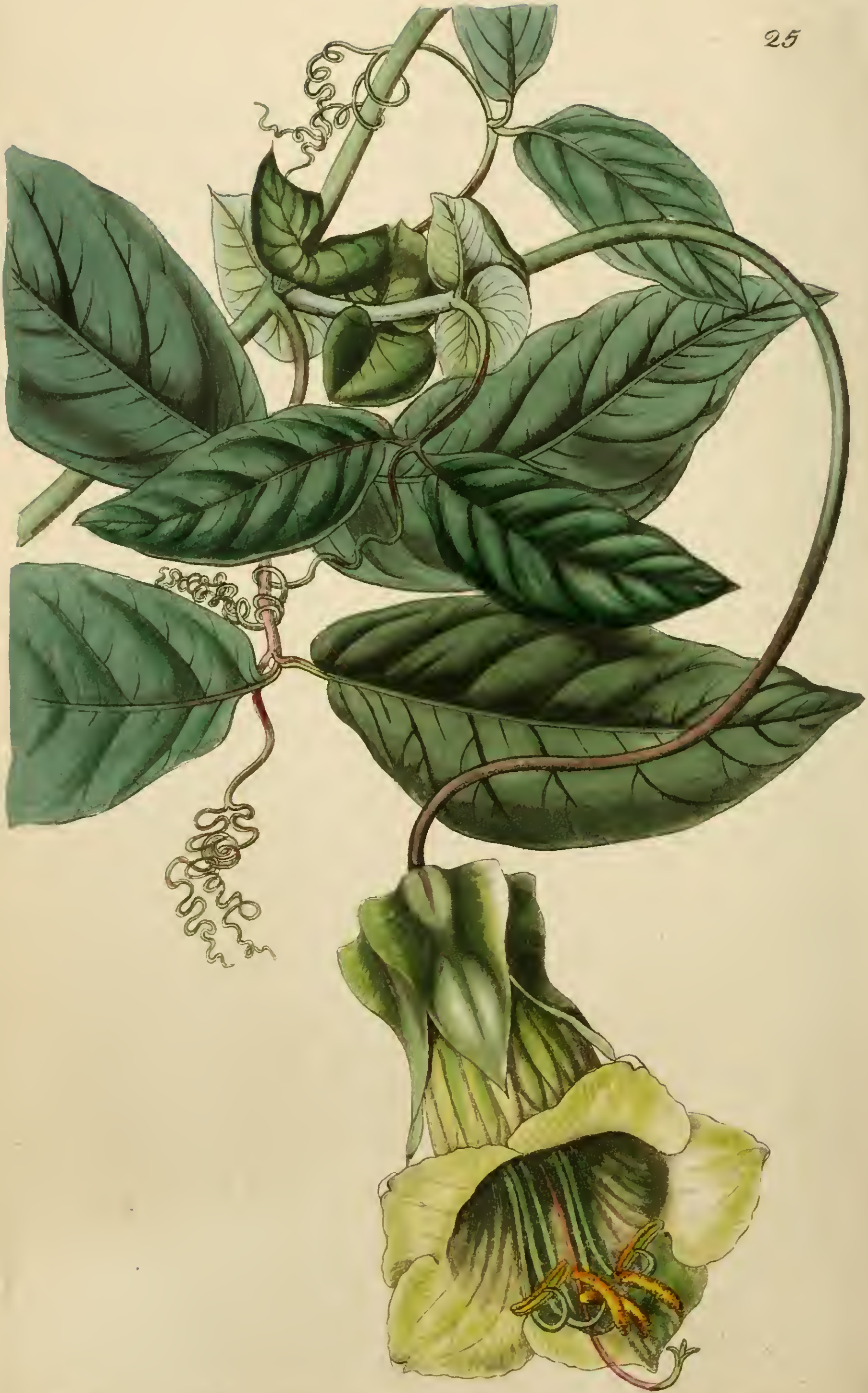
From *L. rubescens*, its nearest ally, it differs in its larger wrinkled pseudo-bulbs, larger and more corymbose flowers, and in the different form of the labellum.

The following is Mr. Booth's account of the plant as it flowered at Carclew.

"This plant was received by Sir Charles Lemon, Bart. from the Horticultural Society in May, 1840, and flowered at Carclew in January, 1841. Although a weak specimen it produced two scapes with a couple of flowers on each, sufficient to shew that, like the others of this delightful genus, it is not only deserving attention but will amply repay with its truly delicate and fragrant flowers any extra trouble that may be taken in its cultivation. It has been hitherto grown in a pot of decayed vegetable lumps, but I suspect it would have thriven better if it had been tied to a branch of such as the Cork tree, and suspended from the rafter of the stove.

"*Pseudo-bulbs* ovate oblong, of a pale yellowish green, covered with large brown scales when young, tapering, compressed, wrinkled and furrowed when old, about two inches and a half long, and rather more than an inch and a half broad, one-leaved. *Leaves* rigid, erect, slightly twisted and keeled at the base, oblong lanceolate, oblique and emarginate at the point, varying from three to five inches long, and nearly an inch broad; of a deep shining green. *Scape* two-flowered, about eight or nine inches high, issuing from the crown of the pseudo-bulb and embraced by the keeled part of the leaf at its base, round and slender, nearly erect, of a pale green, with five or six joints, having to each a persistent brown coloured, sheathing, acuminate bract, an inch long. *Flowers* of a very delicate semitransparent white, with a faint lilac tinge, excepting the centre of the labellum which is yellowish, and the inner part of the lateral lobes which is a deep purplish red. *Pedicels* round and slightly channelled, an inch and a half long, and of a pale green. *Sepals* spreading, oblong lanceolate acute, an inch and a half long, and a quarter of an inch broad, slightly recurved at the edges. *Petals* the same length as the sepals, but twice as broad, with the margin undulated and recurved. *Labellum* three-lobed, the middle one similar in size and form to the petals, but more undulated and contracted towards the base, where it is slightly tinged with yellow in the centre. The two lateral lobes are scarcely half the length of the middle one, and from being erect and arched with their edges meeting in a ridge above the column, they form a kind of wide-mouthed tube, the margin of which is recurved and undulated, and its inner surface of a deep purplish red beautifully veined. *Column* about two-thirds the length of the lateral lobes, rounded on the upper side, hollowed below, and somewhat triangular, nearly white, unless at the point which is a very pale pink. *Anther case* almost spherical, two-celled, the hollow part of the division between them deep pink on the outside. It seems to be held in its position, or cup, by means of a small hooked elongation of the upper ridge and the angular parts of the column, from which it is easily displaced by touching, and then displays the double series of *pollen-masses* arranged in the two cells, four in each, ovatè, compressed and pointed, deep yellow."

25



Miss Drake del. Pub by J Ridgway 169 Piccadilly May 1 1841 G Barclay sc

* COBÆĂ stipulāris̆.

Changeable Cobæa.

PENTANDRIA *MONOGYNIA.*

Nat. ord. POLEMONIACEÆ.

COBÆA, Cav. *Calyx* foliaceus, campanulatus, quinquangulatus, ad suturas quinquealatus. *Corolla* hypogyna, campanulata, limbi quinquelobi lobis late rotundatis, æqualibus. *Stamina* 5, imo corollæ tubo inserta, exserta, æqualia; *filamenta* declinata, demum spiratim torta; *antheræ* oblongæ, incumbentes. *Discus* hypogynus carnosus, quinquangularis, quinquefoveolatus. *Ovarium* tri-v. rarius quinqueloculare. *Ovula* in loculorum angulo centrali plurima, biseriata, amphitropa. *Stylus* terminalis, simplex; *stigma* tri-quinquefidum. *Capsula* pyriformis, subcarnosa, tri-quinquelocularis, loculicido tri-quinquevalvis, valvis columnam centralem placentiferam, tri-pentagonam nudantibus. *Semina* in loculis pauca, biseriata, imbricatim adscendentia, suborbiculata, compressa, testa spongiosa, undique in alam membranaceam angustam productâ, umbilico propre basim ventrali, lineari. *Embryo* intra albumen parcum, carnosum rectus; cotyledonibus late cordatis, obtusis, planis; radicula brevissima, infera.——Frutex *mexicanus, scandens; foliis alternis, sessilibus, paripinnatis, apice in cirrhum desinentibus,* pedunculis *axillaribus unifloris, medio bibracteolatis,* floribus *magnis speciosis* Endlich. gen. no. 3825.

C. *stipularis;* foliorum segmentis trijugis jugorum superiorum angustè ovatis acuminatis basi obliquis, jugi infimi stipulæformibus cauli approximatis reniformibus deorsum acuminatis, sepalis lanceolato-cordatis acutissimis, staminibus corollam æquantibus. *Bentham Pl. Hartweg. p.* 45 *no.* 344*.

A very handsome herbaceous plant, introduced from Mexico by the Horticultural Society. Mr. Hartweg found it near San Cornelio. It is a perennial, like the old Cobæa scandens, or rather a half-shrubby plant, but it may be regarded as an annual so far as English gardens are concerned. The best way to manage it is to raise it annually from seeds sown on a hot bed in March.

It rapidly scrambles on any thing near it, and produces

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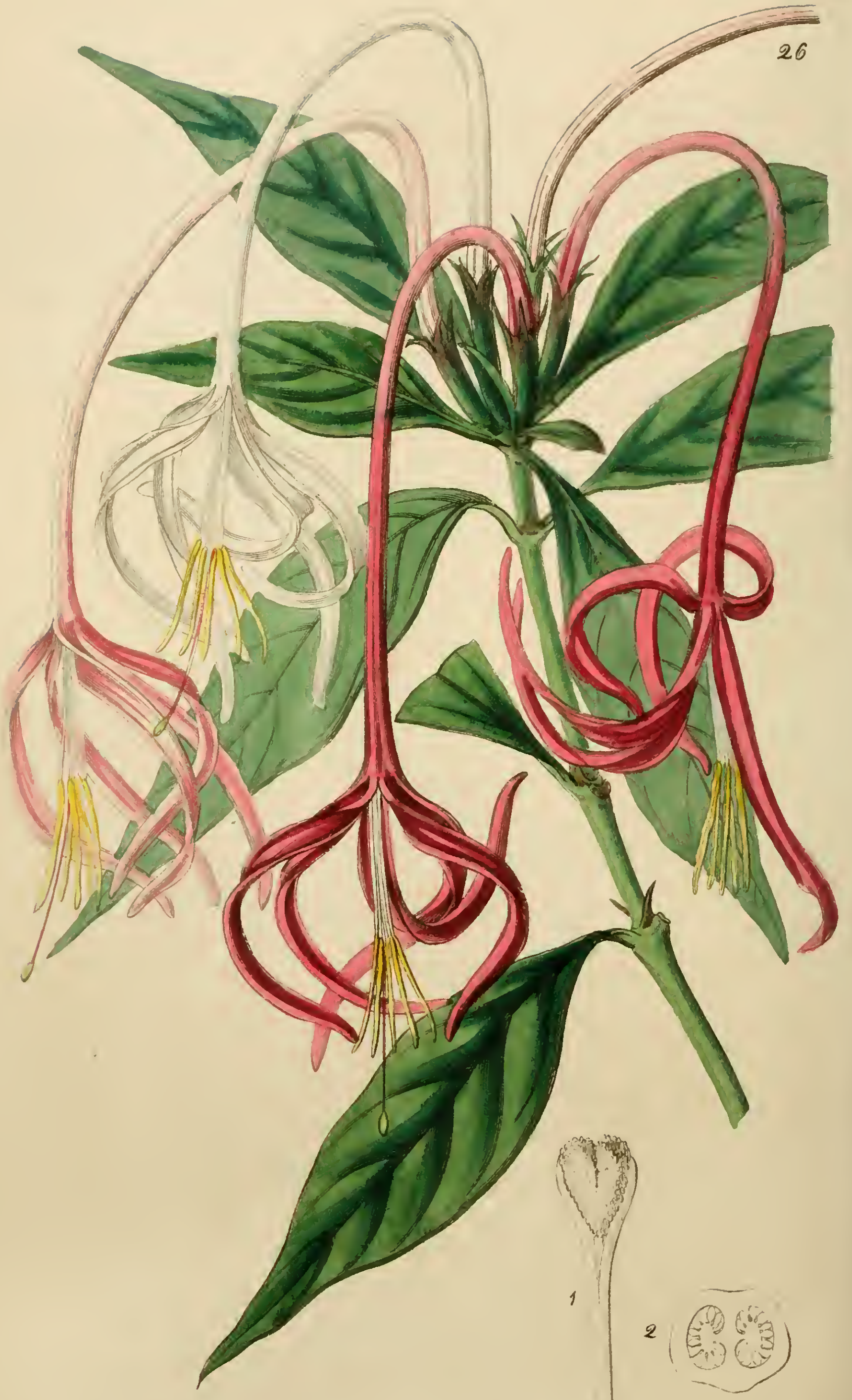
* So called by Cavanilles in compliment to a Spanish Jesuit, named Cobo, who wrote on Natural History about the middle of the 17th century.

its curious large greenish yellow flowers at the latter end of the season. They are often dull purple when they first open, but they soon acquire the colour of the figure. As a conservatory plant this sort of Cobæa succeeds well, provided it is not too much exposed to bright light, which turns the foliage dull purple, and diminishes its beauty very much.

It will strike freely from cuttings, if that method of propagation is preferred.

26



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POSOQUĒRĬĂ versĭcŏlŏr.

Changeable Posoquery.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CINCHONACEÆ.

POSOQUERIA, Aubl. *Calyx* tubo obovato, cum ovario connato, limbo supero, brevi, quinquedentato. *Corolla* supera, infundibuliformis, tubo tereti, longissimo, fauce vix dilatata, villosa, limbi quinquepartite laciniis patentibus, obtusis, subæqualibus, alabastro hinc gibbo. *Stamina* 5, corollæ fauci inserta, exserta; filamenta filiformia, brevissima, apice infracto-geniculata, antheræ oblongæ, acutæ. *Ovarium* inferum, biloculare, disco epigyno carnoso. *Ovula* in placentis dissepimento utrinque adnates plurima . . . . *Stylus* filiformis inclusus; stigma brevissime bifidum, lobis gracilibus. *Bacca* ovata, calycis limbo coronata, succulenta, bilocularis. *Semina* plurima . . . ——Frutices v. arbusculæ, *guianenses et antillanæ, glabræ;* ramis *teretiusculis,* foliis *oppositis, breve petiolatis, coriaceis,* stipulis *oblongo-triangularibus demum deciduis,* floribus *terminalibus, albis, longissimis,* corollis *nutantibus.* Endlich. gen. no. 3308.

P. *versicolor;* foliis ovali-lanceolatis utrinque acuminatis glabris, corollis decurvis versicoloribus: laciniis linearibus staminibus parum longioribus; fauce glabrâ, filamentis antheris subæqualibus.

Oxyanthus versicolor. *Bot. Reg.* 1840. *misc. no.* 150.

I referred this at first to the African genus Oxyanthus, and now I prefer the Posoquery of Guiana; the truth being that the plant does not belong exactly to either. With Oxyanthus it corresponds in the absence of hairs from the throat and in the long filaments, with Posoqueria in the oblique corolla; from Oxyanthus it differs in the latter circumstance, from Posoquery in its naked throat and very prominent anthers. Upon full consideration of the differences between those genera, it appears that the essential points are the oblique corolla of one and the regular one of the other; and in this point of view the plant before us is a Posoquery.

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[*] Aymara Posoqueri is the native name among the Caribs of the original species.

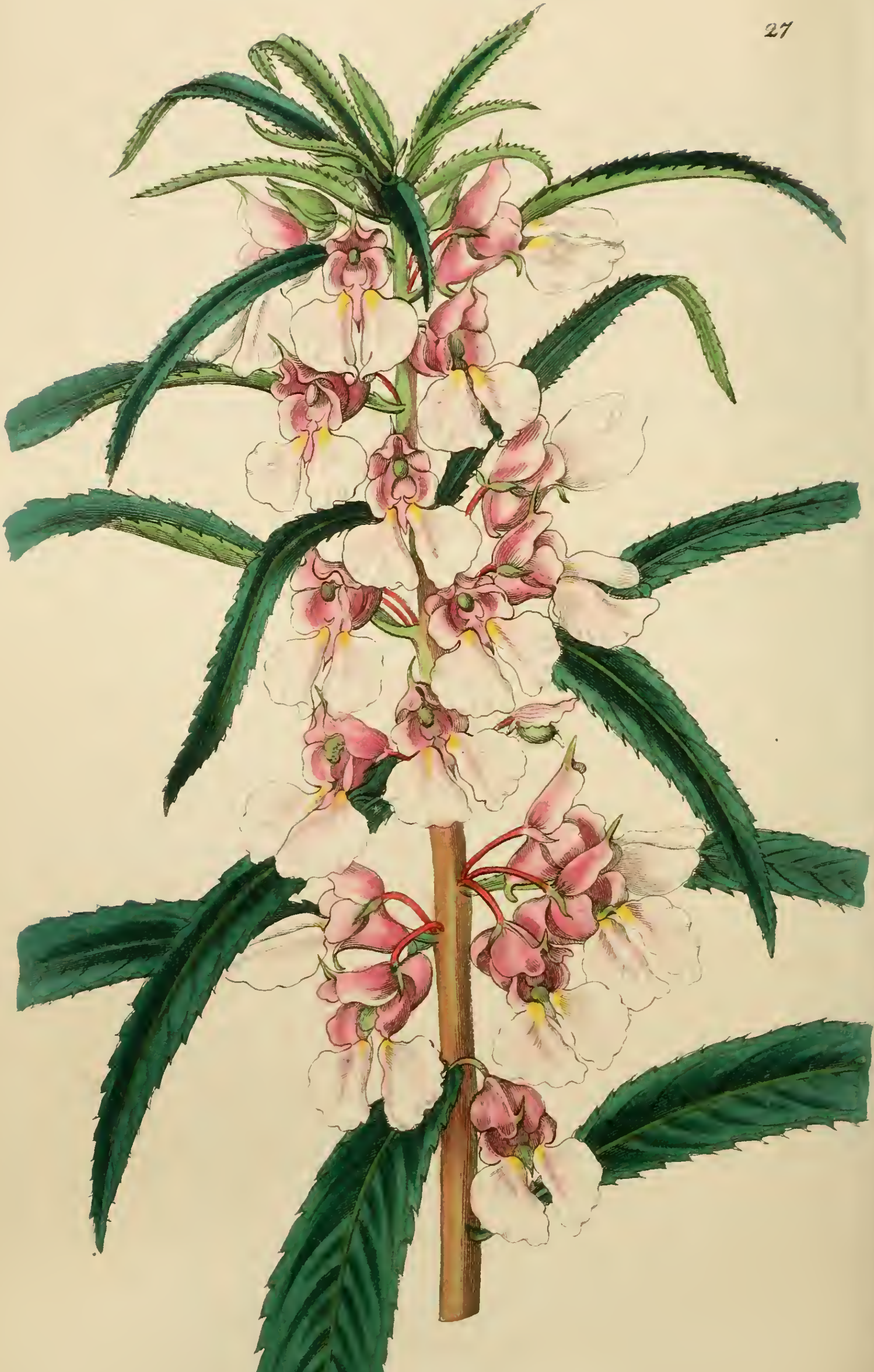
It is a very handsome stove shrub, with long pendulous fragrant flowers, changing from white to crimson through pink ; and must be regarded as quite an acquisition to the collections of plants requiring high temperature.

It is a native of Cuba, whence Messrs. Loddiges imported it, and with whom it flowered in August, 1840.

Fig. 1. shews the stigma, and 2. a transverse section of the ovary.

It is propagated by either cuttings or layers, and likes such a soil as loam, peat, leaf-mould, and sand.

27



Drake del. Pub by J. Ridgway 169 Piccadilly [illegible] [illegible] sc.

* IMPĂTĬĒNS rŏsĕă.

Small Pink Balsam.

PENTANDRIA *MONOGYNIA.*

Nat. ord. BALSAMINEÆ (Geraniacearum mera §).
IMPATIENS. *Linn.*

I. *rosea;* annua, caule pubescente, foliis lineari-lanceolatis serratis, pedunculis unifloris aggregatis axillaribus foliis quadruplò brevioribus, sepalo dorsali mucronato inermi, calcare brevi ventricoso glabro apice constricto incurvo, petalorum biloborum laciniâ nanâ rotundatâ majore oblongâ dimidiatâ obtusâ planiusculâ fructu lanato. *Bot. Register,* 1841. *misc. p.* 6. *no.* 22.

A beautiful half-hardy annual from the Himalayas, introduced by the Court of Directors of the East India Company. It requires exactly the same treatment as the common garden Balsam, and grows to as large a size. The paper that contained the seed was marked "Woolly-podded Balsam, found growing on old ruins."

The leaves are from six to eight inches long, linear-lanceolate, more tapering to the base than to the point, bordered with fine saw-teeth, each of which is tipped with a minute sharp callosity. The flowers appear in clusters, from the axils of the leaves, all along the stem and branches. Their stalks are blood-red, and about as long as those of the leaves. The sepals are deep rose colour; the back one being simple and produced abruptly into a point, while the front one has a short green horn abruptly turned upwards. The petals are much larger and paler than the sepals, and of the two lobes of which they consist the smaller are rounded and erect, while the larger are half oblong, and hang down like a double lip in front of the flower. The pods are oblong, and covered with white wool.

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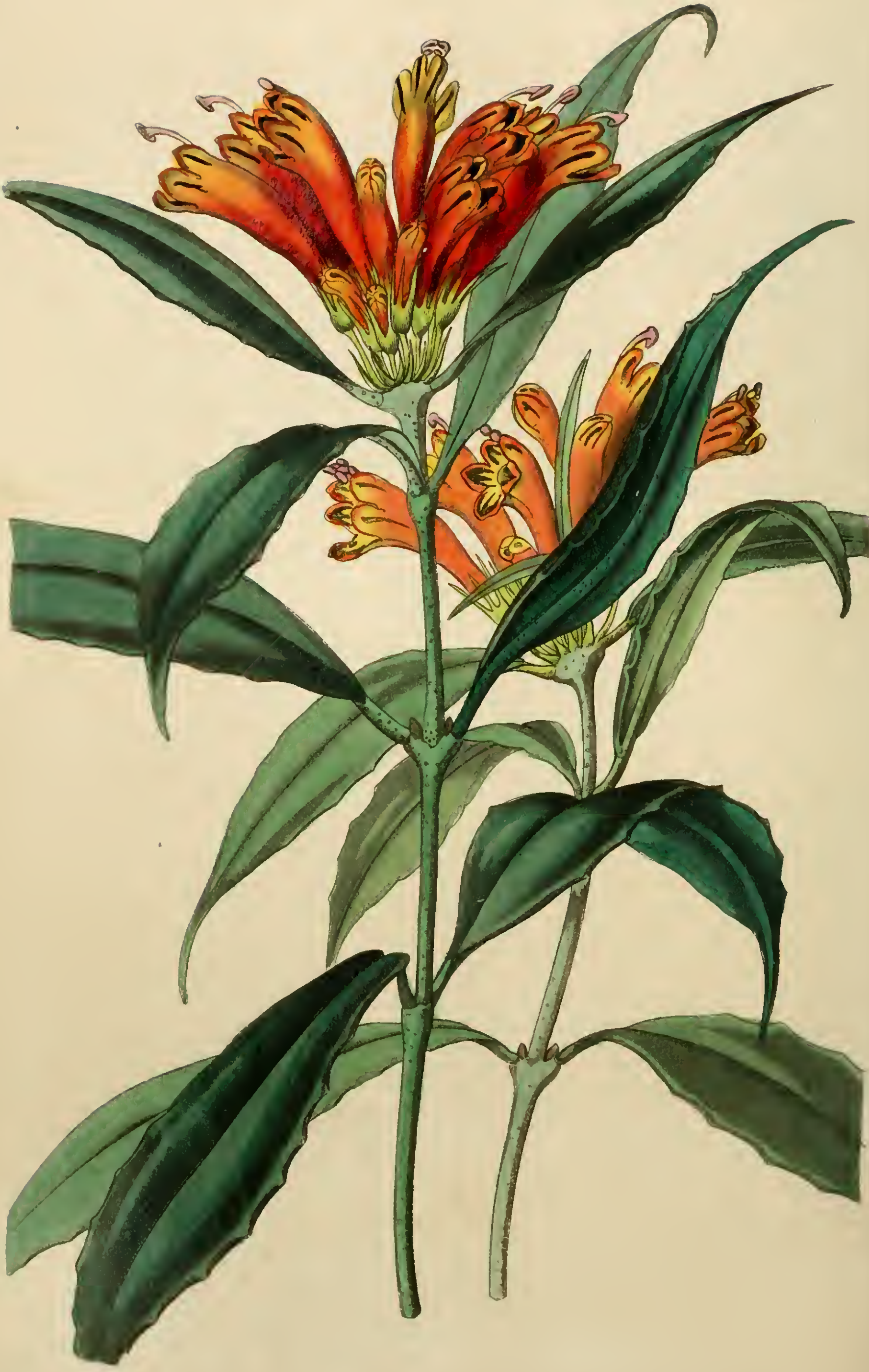
* See Botanical Register, 1840. t. 2.

Upon comparing this with the Indian species already published we find nothing to which it can be considered referable, although it approaches closely to several. The common garden Balsam itself for instance is not very distinct, except in the large size of the flowers, in the shorter and broader leaves, and in a longer spur. *I. longifolia* has quite the same foliage and habit, but its spur is long and straight, which, together with its small flowers, renders it incomprehensible how Wight and Arnott should have referred it to the common Balsam as a simple variety. *Impatiens coccinea* is much more like this than any of the others, but its leaves are shorter, and its sepals are clothed with dense downiness, of which there is no trace in the plant before us; its back sepal too is not so suddenly and finely tapered to a point.



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* ÆSCHYNĀNTHŬS maculātŭs.

Spotted Blush-wort.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. CYRTANDRACEÆ.

ÆSCHYNANTHUS, Jack. *Calyx* tubulosus, quinquefidus, æqualis. *Corolla* hypogyna, tubo subincurvo, fauce dilatata, limbi bilabiati labio superiore erecto, bilobo, inferiore trifido, laciniis subæqualibus. *Stamina* corollæ tubo inserta, quatuor, didynama, exserta v. inclusa, filamentis filiformibus, antheris basifixis, bilocularibus, per paria cohærentibus, quintum posticum inclusum, anantherum. *Ovarium* annulo hypogyno carnoso cinctum, placentis duabus, lamina parietali stipitatis, latis, ad axim contiguis ad margines revolutos multiovulatis pseudo-quadriloculare. *Stylus* simplex; stigma clavato-bilamellatum. *Capsula* basi calyce stipata, elongato-siliquæformis, pseudo-quadrilocularis, bivalvis, valvis medio placentas, demum explanatas, margine seminiferas gerentibus. *Semina* plurima, cylindrica, funiculo filiformi et chalaza incrassata in filum simplex v. bifidum excurrente utrinque aristata. *Embryonis* exalbuminosi, orthotropi cotyledones breves, obtusæ, radicula teretiuscula, umbilicum basilarem attingens.——Frutices *Asiæ tropicæ, volubiles v. scandentes, ad articulos tumidos radicantes;* foliis *oppositis, petiolatis, coriaceo-subcarnosis, integerrimis,* pedunculis *axillaribus solitariis, bifloris, rarius terminalibus, umbellatis,* pedicellis *bibracteolatis,* floribus *speciosis, aurantiaceo-coccineis, viscoso-pilosis.* Endlicher genera, no. 4134.

Æ. *maculatus;* caule ramoso, foliis lanceolatis coriaceis petiolatis utrinque acuminatis nunc obsoletè denticulatis, umbellâ subsessili terminali multiflorâ, calycis pilosi laciniis linearibus pilosis, corollæ clavatæ subpubescentis laciniis obtusissimis subæqualibus, antheris purpureis.

Caulis *erectus, teres, glaber, ad nodos tumescens.* Folia *fere 4-pollicaria, avenia, coriaceo-carnosa, petiolo tereti, costâ mediâ subdiaphanâ.* Bracteæ *subulatæ, deciduæ.* Calycis *pili glandulosi, laciniæ tubo longiores, dorso obsoletè bicarinatæ.* Corolla *sanguinea, ferè sesquipollicuris, nullo modo tumida, laciniis sub apice maculâ atrosanguineâ notatis; labio inferiore intus secus axin papilloso.* Filamenta *glabra; quinti rudimento nullo;* antheræ *purpureæ, obliquæ, apice tangentes nec cohærentes, epithecio ab endothecio secus dehiscentiæ lineam solubili.* Discus *truncatus, cyathiformis, margine roseus.* Ovarium *lineare, uniloculare, glabrum, placentis didymis parietalibus polyspermis margine revolutis;* stylus *glandulosus;* stigma *ovale, transversum, medio perforatum.*

In the hot damp sands of India, upon rocks and trees, where Orchidaceæ and Ferns delight to grow, are found many

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* So called from *αισχυνομαι* to blush, and *ανθος* a flower.

May, 1841.

species of the beautiful genus Æschynanthus, whose stems cling to such surfaces, and are said to maintain themselves by äerial roots, like those of our ivy. In our gardens several have now been established, not however under the names that properly belong to them, but with such as error or caprice have dictated. This, for instance, that in the gardens rejoices in the name of the "branching," (ramosissimus) is not the species so named by Dr. Wallich, which has larger calyxes and smaller corollas; neither is it that which Dr. Roxburgh called "the parasitical," from the forests of the Garrow hills, as some will have it; for that species has flowers "large, pendulous, crimson-yellow, approaching in shape and size to those of Digitalis purpurea," our Foxglove.

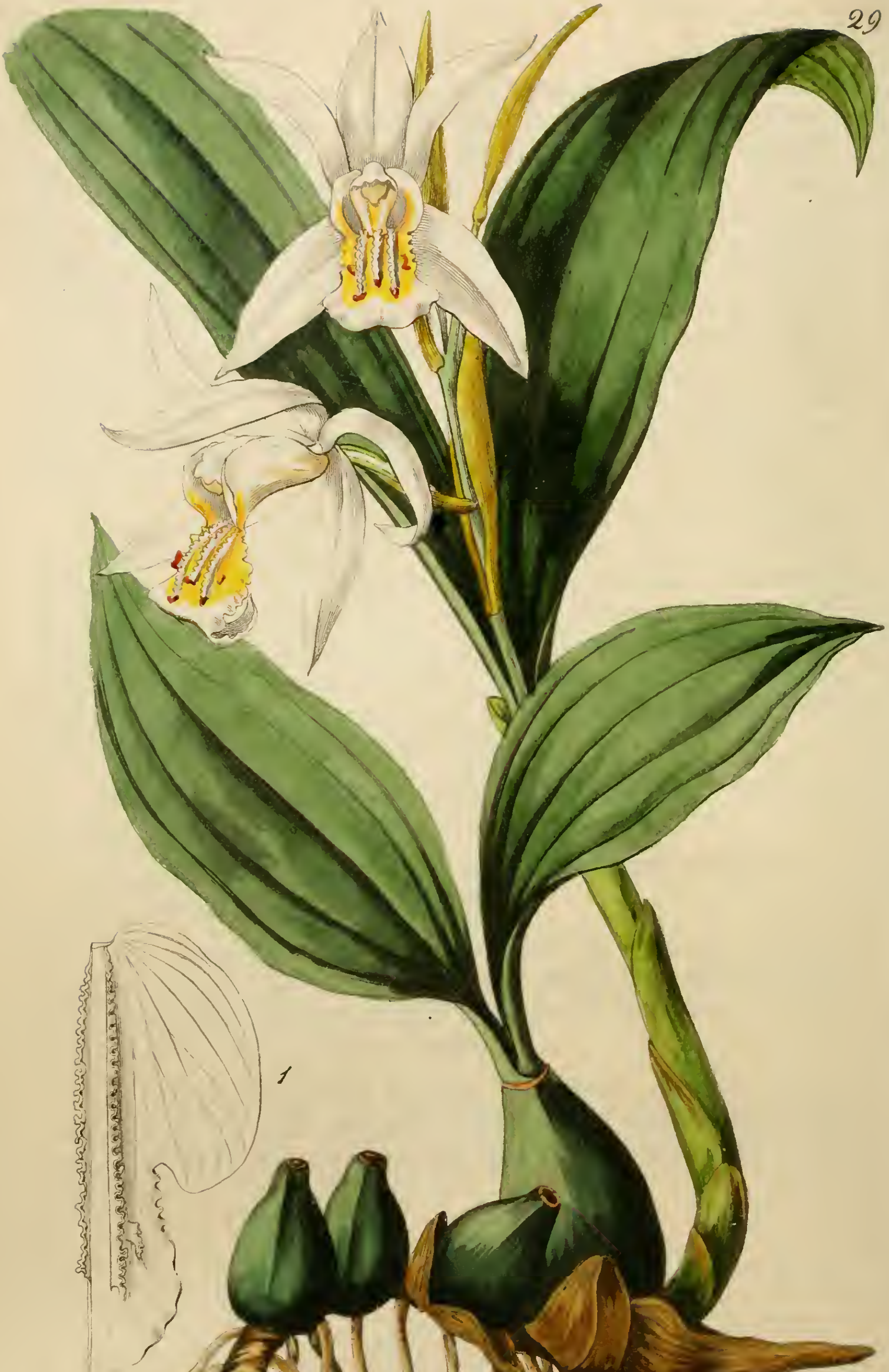
It appears, on the contrary, to be a well marked species, distinct from all enumerated by Dr. Wallich, of each of which I possess authentic specimens. No doubt it is a native of India, but from what part, or when introduced does not appear. The figure was made from a plant in the possession of Mrs. Lawrence, in June 1839. Since that time the colours have improved in richness, and much of the yellow has been replaced by deep and vivid crimson.

The true Æschynanthus parasiticus is probably the Æsch. grandiflorus of the gardens.

A stove plant, requiring a strong heat and damp atmosphere during the growing season.

It is cultivated best when fastened to a large piece of rough stick, placed in the pot, the remaining space in the pot being filled up with a light mixture of leaf mould, sandy peat, and a small portion of loam.

It strikes freely from cutting, and is one of those plants which seem to have no particular time of flowering, which depends more on the time the plants are rested than the season.



Miss Drake del. Pub. by J. Ridgway 169 Piccadilly May 1. 1841 G. Barclay sc.

CŒLŎGȲNĒ Cumīngĭī.

Mr. Cuming's Cœlogyne.

GYNANDRIA *MONANDRIA*,

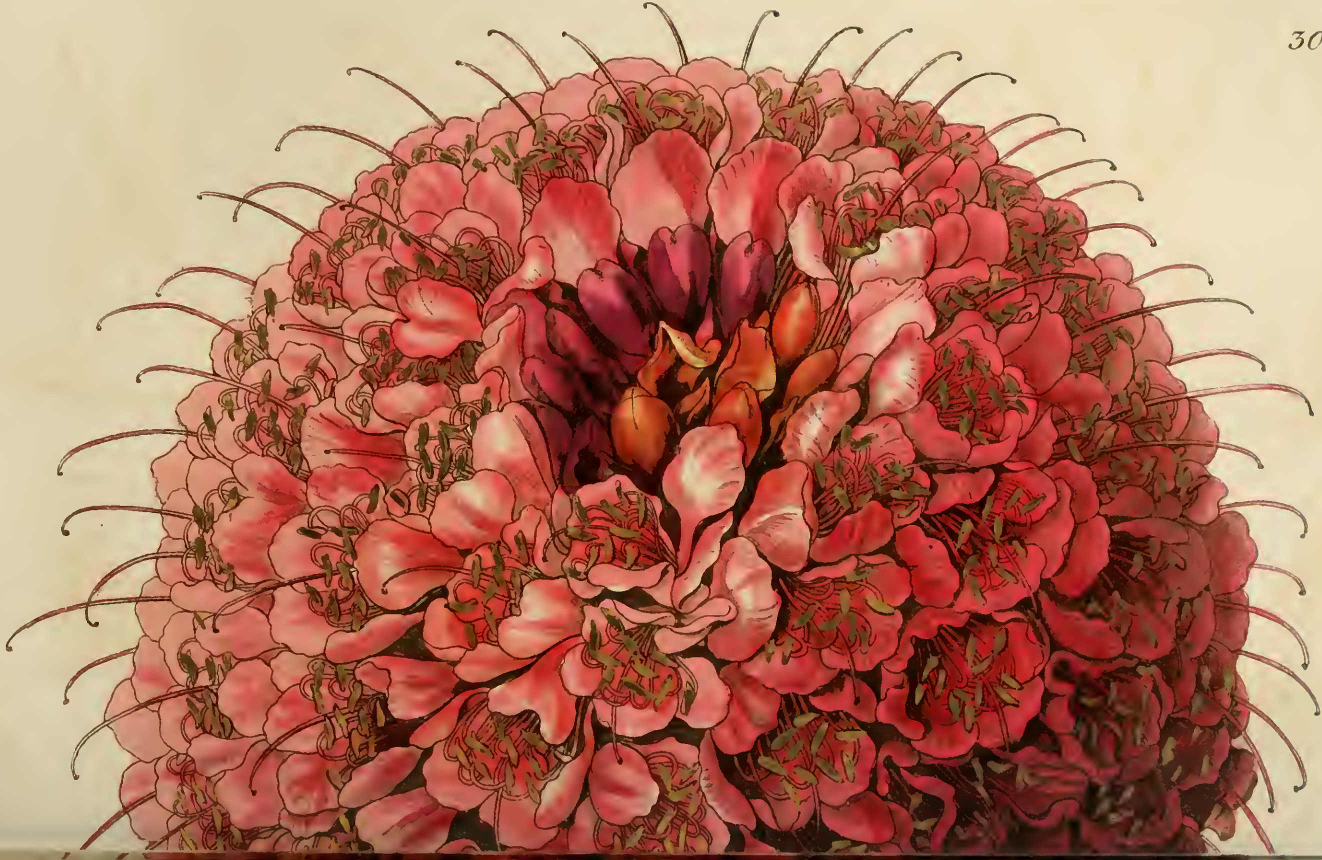
Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.
CŒLOGYNE. *Botanical Register, vol.* 11. *fol.* 868.

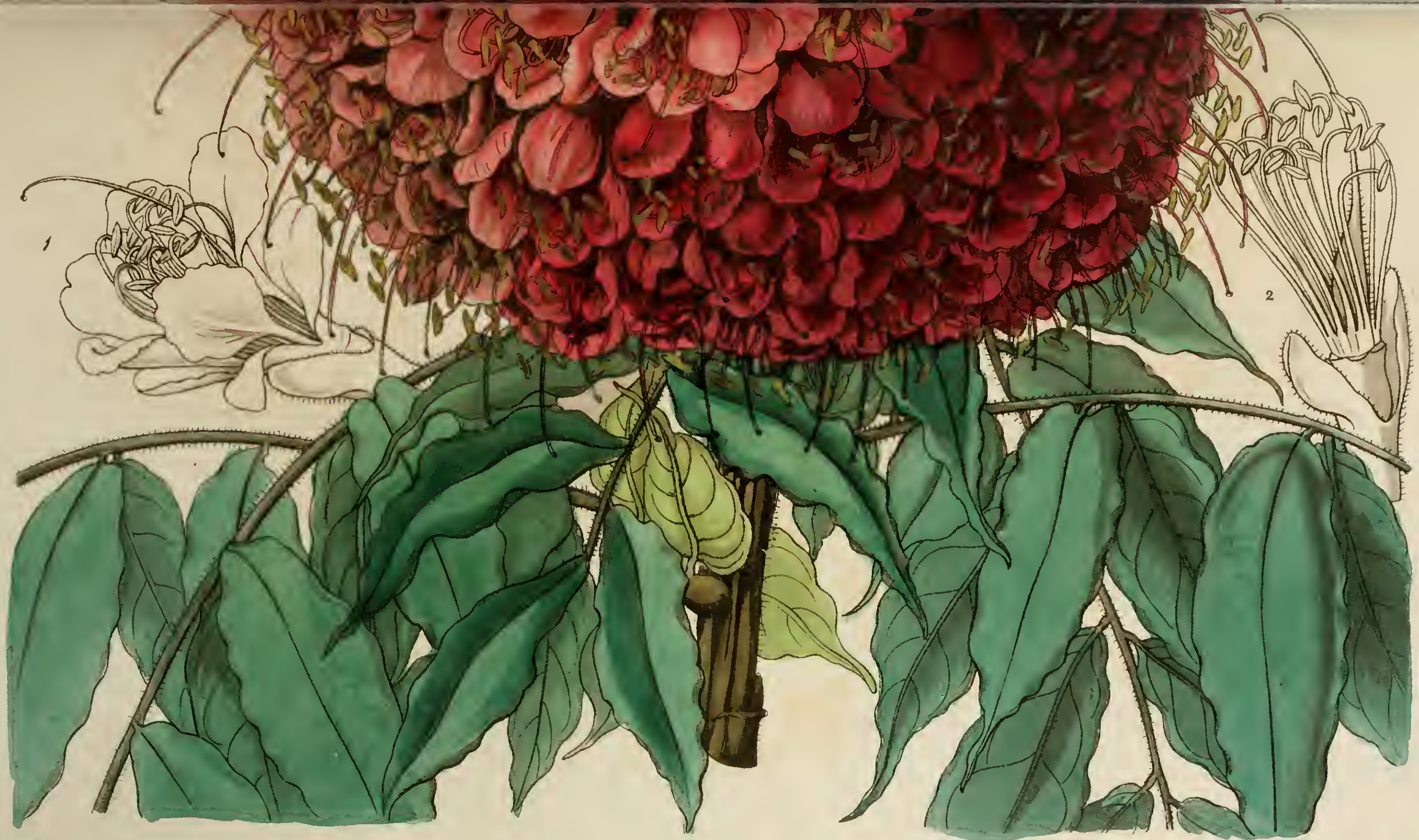
C. *Cumingii;* pseudobulbis ovatis, foliis geminis lanceolatis 5-nerviis utrinque acuminatis racemo paucifloro longioribus, scapo basi nudo, bracteis convolutis floribus longioribus, petalis lineari-lanceolatis patentibus, labelli trilobi lobis lateralibus rotundatis intermedio ovato acuto revoluto basi crispo, lamellis 3 crispis continuis. *Bot. Reg.* 1840. *misc.* 178.

Often as Sincapore has been visited, it still seems to abound in handsome unknown species of Orchidaceous plants. Among those collected by Mr. Cuming, and by him sold to Messrs. Loddiges, was the present, which, when in good flower, is a very pretty species, with fine white flowers, and a bright yellow blotch on the labellum. The elevated ridges which decorate it are three in number, the intermediate one being the shortest; they are terminated by a deep orange stain, and have a small outlying toothed appendage on each side of the outer ridges towards the termination. It is to these little peculiarities in the surface of the labellum that many tribes of Orchidaceous plants owe their varied aspect and much of their beauty; they also, as has been before observed, furnish the best characters for distinguishing the species.

C. *Cumingii* is closely allied to C. *trinervis*, which is however readily known by its very long narrow leaves, its shorter bracts, smaller flowers, and much shorter middle lobe to the lip, which also appears to want the outlying processes on either side of the ridges.

It should be cultivated in a very warm and moist stove, such as suits Dendrobiums and plants of that kind. The pot must be well drained, and filled up with turfy peat or sphagnum, to which the creeping stem should be fastened with wooden pegs, and the pseudo-bulbs left uncovered. If water is allowed to lodge about the young shoots, they are very apt to be injured by it.





Miss Drake del

Pub by J Ridgway 169 Piccadilly June 1 1841.

G Barclay sc.

* BRŌWNÆĂ grăndĭcēps.

Large-headed Brownæa.

MONADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ CÆSALPINIEÆ.

BROWNÆA. Jacq. Calyx tubo elongato, persistente, limbi quinquepartiti, decidui laciniis longis, duabus v. quatuor per paria cohærentibus. *Corollæ* petala 5, summo calycis tubo inserta, longissime unguiculata, subæqualia. *Stamina* 10-15, cum petalis inserta, in tubum hinc fissum coalita, omnia fertilia. *Ovarium* stipitatum, sex-septemovulatum. *Stylus* filiformis; *stigma* acinaciforme, compressum. *Semina* ovata, compressa, fibris fungosis obvoluta.——*Arbusculæ Americæ tropicæ inermes, speciosæ ;* ligno *flavescente, duro,* foliis *paripinnatis,* foliolis *integerrimis,* inflorescentia *terminali, floribus racemosis v. plus minus dense spicato-capitatis, bracteatis, coccineis v. albis,* pedicellis *apicem versus bibracteatis,* bracteis *in tubum infundibuliformem bilobum connatis.* Endlicher genera, no. 6810.

B. *grandiceps ;* foliolis sub-12-jugis lanceolato-oblongis longissimè cuspidato-acuminatis eglandulosis, staminibus longitudine corollæ, ramis petiolisque pubescentibus, floribus densè capitato-spicatis. *DeCand. prodr.* 2. 477.

B. grandiceps. *Jacq. coll.* 3. 287. *t.* 22. *f. a. i. fragm. t.* 22 *&* 23. *Humb. Bonpl. Kunth. nov. gen. & sp. amer.* 6. 313. *Lamarck. illustr. t.* 575. *f.* 2.

Frutex *in caldario strictus, orgyalis, trunco simplici, versus apicem tantum ramulosus.* Folia *densa, multijuga, sessilia. petiolo ramulisque tomentosis ;* foliola *infima cordata, superiora oblonga, omnia cuspidato-acuminata, undulata, ad costam pubescentia, nunc opposita, nunc alterna.* Bracteæ 2, *tomentosæ, obtusæ, convexæ, basi in tubum connatæ, calyce breviores.* Calyx *tubulosus, glaber, tripartitus, laciniâ supremâ oblongâ emarginatâ, inferioribus oblongis obtusis indivisis.* Petala 5, *spathulata, rotundata, longè unguiculata.* Stamina 11, *petalorum longitudine, basi monadelpha, calycis fauce inserta ;* antheræ *ovales subsagittatæ.* Ovarium *stipitatum, tomentosum,* stylo *filiformi ascendente,* stigmate *simplici ; stipite calycis tubo accreto.*

All the species of this genus are stove shrubs, inhabiting the hottest parts of America. That before us was collected

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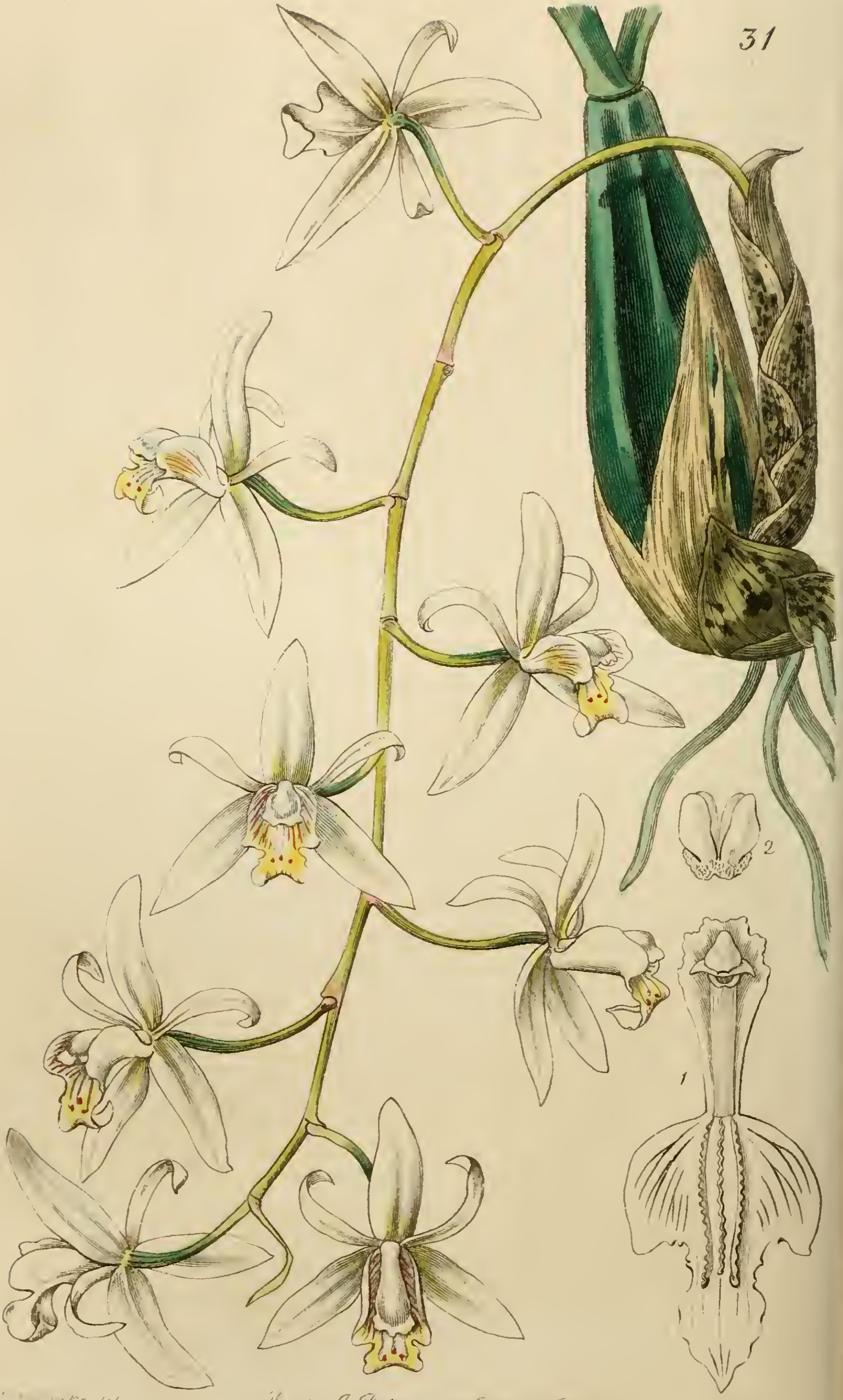
* So named by Jacquin in honour of Dr. Patrick Browne, the author of a Natural History of Jamaica, excellent in its day.

June, 1841.

in the mountain forests of Caraccas, and in woods near Cumana, whence it was sent to Europe many years ago. The plant itself is not uncommon, but to see it in flower is a rare occurrence. The specimen now figured was sent me by Richard Harrison, Esq. of Liverpool, with whom it opened its noble blossoms in March last. They are produced in a short spike, tier above tier; every day witnessed the expansion of a new tier above those of the former days, till at last the whole mass became a globe of living and glowing crimson. This brilliant head appeared on the side of the main-stem, among the leaves, which at that time presented a singular phenomenon. Every evening they rose up and lifted themselves from the blossoms to expose them to the dew, so that each morning these beautiful objects were uncovered; but as day advanced the leaves gradually drooped, and bent down over the flowers to guard them from the rays of the sun. Who can imagine the gorgeousness of an equinoctial forest at midnight with the veils thus lifted off myriads of flowers of every form and hue, which are hidden from our gaze in this or other ways during the hours of a tropical sunlit day, whose brilliancy would be death to their tender texture and delicate colours?

This noble tree must be grown in the damp stove. When its seeds are good they are easily raised if sown in light soil and plunged in a tan pit or hot-bed. A rich free soil that will not get hard or sour is the best for its after growth. It is only in a large house that it can thrive well for any length of time, and be seen in its greatest beauty; and if it is planted out in the border, or in a large tub with sufficient room all round for its leaves, it forms really a magnificent object.

31



Drake del.   Pub by J. Ridgway 169 Piccadilly June 1841   G Barclay sc.

CŒLŎGȲNĒ flăccĭdă.

Drooping Cœlogyne.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ (*nec* MALAXIDEÆ).
CŒLOGYNE. Botanical Register, vol. 11. *fol.* 868.

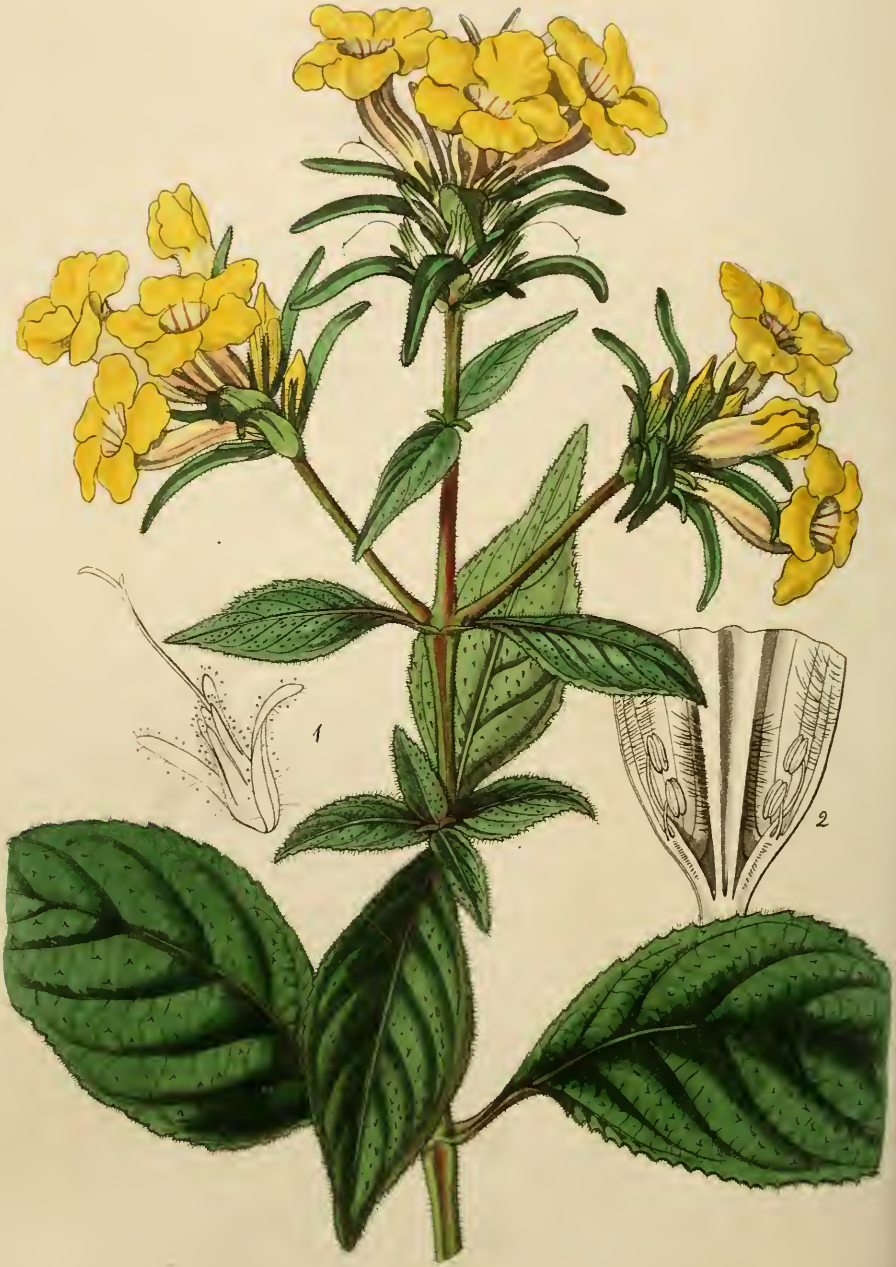
C. *flaccida;* pseudo-bulbis oblongis angulatis squamis coriaceis acuminatis ustulatis vestitis, foliis lanceolatis v. oblongo-lanceolatis longè petiolatis, racemo flexuoso nutante, bracteis deciduis, petalis lineari-lanceolatis, labello ovato trilobo: lineis tribus elevatis flexuosis: lobo medio ovato duplò angustiore basi denticulato, columnâ apice dentatâ. *Lindl. gen. & sp. Orch. p.* .
C. flaccida. *Bot. Mag. t.* 3318.

Not an uncommon Epiphyte, having been in the country for several years. It is a native of Noakote, in Nepal, where Dr. Wallich found it growing on trees. Its long stalked narrow leaves, and the stiff scales that surround the base of the scapes and pseudo-bulbs, mottled with pitch brown, as if they were scorched, readily point out this species, which is one of the least attractive of its genus.

The flowers grow in long drooping racemes, and are originally enclosed in bracts, which however are soon thrown off and leave the flowers naked. They have a peculiar disagreeable odour. The sepals are white, linear-oblong, scarcely acute. The petals are the same colour, but not more than one-third the breadth, and are curved backwards. The lip is channelled, ovate, three-lobed, with the middle lobe ovate, acute, wavy, toothed at the base, and turned back at the point. Near its base are several crimson veins; towards the apex it is yellow in the centre; along the middle run three raised wavy lines which terminate abruptly a little within the base of the middle lobe. The column is bordered with a toothed membrane, originally described by me as entire, in consequence of an error in Dr. Wallich's Indian drawings.

Fig. 1. shews the column, with the lip bent downwards and flattened; fig. 2. is the pollen-masses, with their granular base.

The species requires the same management as C. Cumingii t. 29 of this volume; namely, a very moist stove, and the pots well drained. Turfy peat or sphagnum is the best material for potting. Water must be liberally given during the growing season, but must not be allowed to lodge in the leaves of the young shoots when they are tender, as it is sure to rot them. There is nothing worse for plants of this kind than allowing their leading shoot to damp off; it is some time before they form another, and then it is generally much weaker than the former one.



Drake del. Pub by J. [illegible] Piccadilly June 1 1841 J. Barclay sc.

* STROBILĀNTHĒS scābră.

Rough-leaved Conehead.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. ACANTHACEÆ.

STROBILANTHES, Nees. *Calyx* quinquepartitus, laciniis herbaceis. *Corolla* hypogyna, infundibuliformis, tubo sensim transeunte in limbum campanulatum, quinquefidum, laciniis æqualibus v. subæqualibus, obtusis v. emarginatis. *Stamina* 4, corollæ tubo inserta, inclusa, didynama; *antheræ* biloculares, loculis parallelis. *Stylus* simplex; *stigma* subulatum, incurvum v. involutum. *Ovarium* biloculare, loculis biovulatis. *Capsula* subunguiculata, tetragono-columnaris, bilocularis, tetrasperma, loculicide bivalvis, valvis medio septiferis v. dissepimento soluto. *Semina* discoidea, angulata, retinaculis uncinatis subtensa.——Frutices v. *rarius* herbæ, *in Asia tropica crescentes;* foliis *oppositis,* spicis *axillaribus v. terminalibus, plus minus densis,* bracteis *foliaceis v. foliaceo-membranaceis, persistentibus v. caducis,* bracteolis *parvis v. rarius nullis,* floribus *majusculis cœruleis v. albis.* Endlicher genera plant. no. 4053.

§ *Sclerostrobilanthes.* Spicæ rigidæ, densæ, erectæ, bracteis persistentibus. *Nees in Wall. pl. as. rar.* 3. *p*. 84.

S. *scabra;* fruticosa, caule hispido, foliis obovato-ellipticis dentato-crenatis supra lineolatis exasperatis setulisque dissitis hirtis subtùs pallidis, spicis infraterminalibus oppositis, terminalibus ternis glandulosis. *Nees l. c.*

This pretty stove plant has lately flowered in the collection of his Grace the Duke of Northumberland, by whose permission a drawing was made for this work. It is half shrubby, with a dark green foliage, and terminal clusters of gay yellow flowers. It appears to grow wild in various parts of India, as in Prome and Sillet, but no exact locality is given, nor is any further information to be found concerning it in Dr. Wallich's great work, where only it has been hitherto published

It is remarkable for being covered over with short stiff hairs, which form little points upon the leaves and stems. The President Nees v. Esenbeck, who examined Dr. Wallich's specimens, distinguishes some varieties, one of which has a woolly inflorescence; he also states that the flowers are purplish; but that must be a mistake, probably owing to his having had ill dried specimens to examine.

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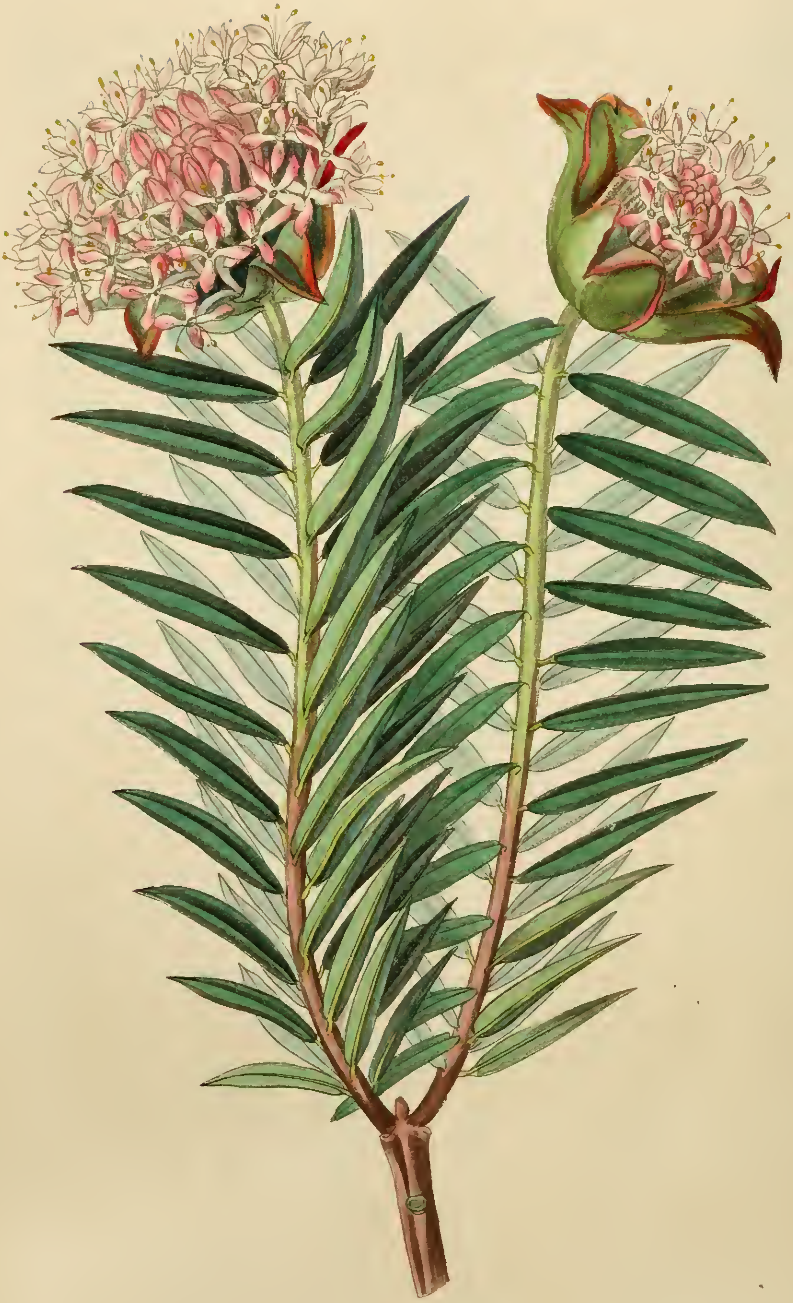
* From στροβιλος a pine cone and ανϑος a flower, in allusion to the appearance of the inflorescence of some species before the blossoms expand.

Fig. 1. represents a calyx surrounded by three bracts, together with a style and stigma. Fig. 2. is a section of a portion of a corolla, shewing the position and length of the stamens, and the hairiness found in the interior of the tube. All the green parts of the inflorescence are covered with the glandular hairs shewn in fig. 1.

It requires to be managed in much the same manner as an Eranthemum or Justicia. It strikes readily from cuttings, and grows luxuriantly in any free soil, but like some of the Justicias it is rather shy in producing an abundance of flowers. This may be overcome in two ways, either by planting it in the border of the stove and allowing it to become a large bush, or by growing it in rather small pots, keeping it very cool all the summer, and bringing it back to the stove in autumn.

33



Drake del. Pub by J. Ridgway 169 Piccadilly Ju. 1 1841 Barclay sc

PIMELĒĂ spectābĭlĭs.

Showy Pimelea.

DIANDRIA *MONOGYNIA.*

Nat. ord. THYMELACEÆ.
PIMELEA. Botanical Register, vol. 15. *fol.* 1268.

P. *spectabilis;* foliis oppositis lineari-oblongis acutis sessilibus glaucis ramisque glaberrimis, capitulis sphæricis sessilibus multifloris, calycis limbo sericeo tubo villosissimo, involucri foliolis ovatis acuminatis coloratis. *Lindl. Append. Bot. Reg. t.* xli.

Frutex *humilis, lævis, glaucescens.* Folia *alterna et opposita, subdecussata, oblongo-linearia, acuta, ascendentia; suprema paulò latiora, demùm in foliolis involucri mutata.* Hæ *sex circiter, formâ ovatâ acuminatâ, apice recurva, margine sanguineo colorata, flores in cyathi formam ambeunt.* Flores *carnei, demum pallidi, numerosissimi, quoad tubum pilis longissimis scabridis vestiti, in limbum sericâ tantum tecti, capitulum sphæricum pugni infantis magnitudine efficiunt.*

This is one of the best Swan River shrubs yet introduced. It is in the way of P. hispida, but is much handsomer, has heads of flowers twice as large at least, and is readily known when out of flower, by the smooth rather glaucous leaves, so arranged as to form four rows along the stem.

When the flowers first expand, they are like the accompanying figure, but as the rest unfold the whole flower-head increases considerably in size, and the slender branches bend beneath its weight. At the Swan River it appears that the bracts acquire a much brighter colour than with us, and thus give the plant a still gayer appearance.

Among other good qualities the species of Pimelea possess that of living for a long time when cut and placed in water, and so become useful ornaments of bouquets.

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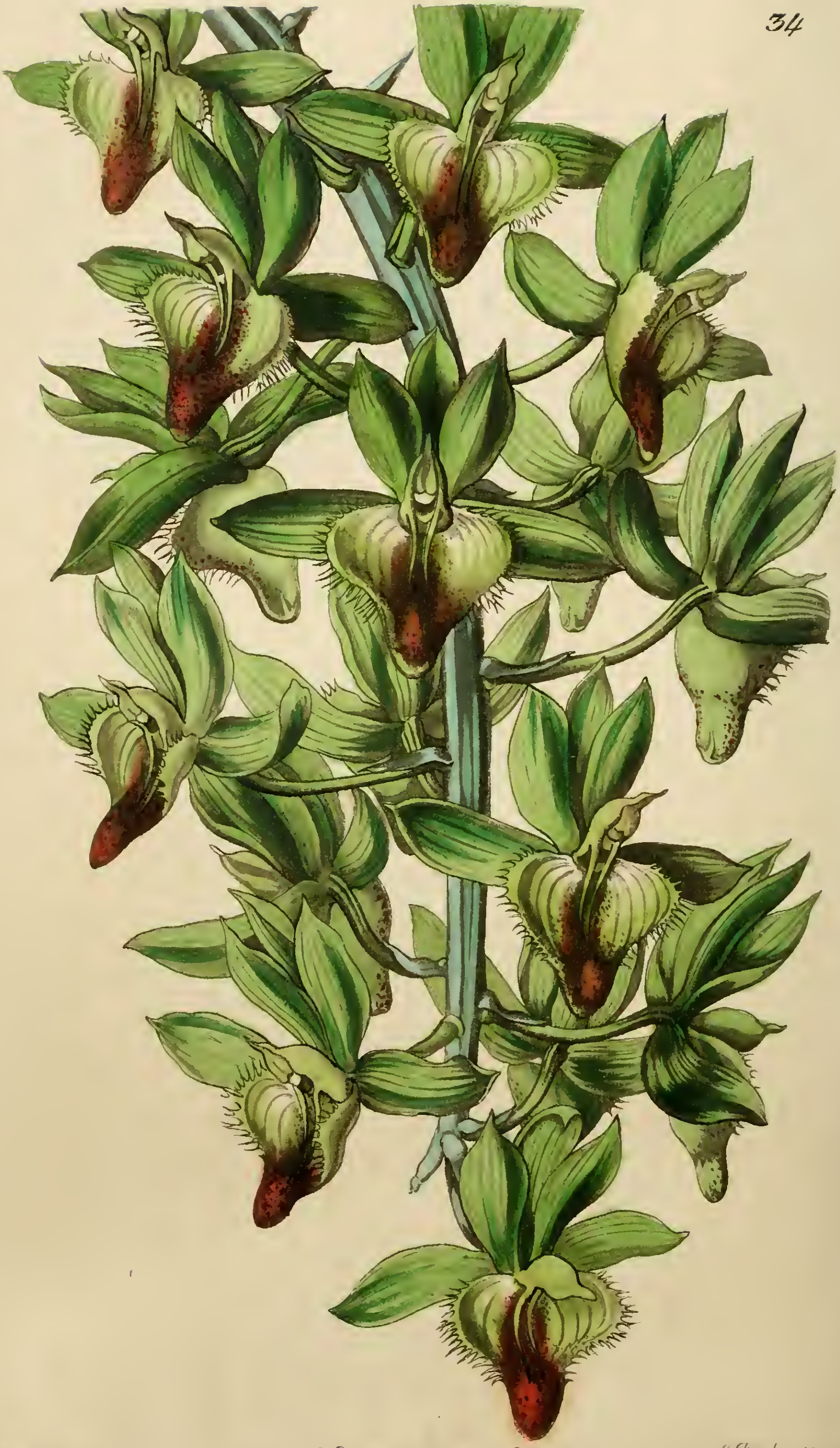
* See Botanical Register, fol. 1268.

It is as easy cultivated as any of the commoner species. When seeds can be procured they should be sown any time in the spring or summer, but not late in autumn, as the young plants are apt to "damp off" in the following winter. The seedlings should be placed in a light situation, and regularly shifted into larger pots as they grow stronger. The best soil is a mixture of loam, peat, leaf-mould, and sand. It forms a beautiful plant in a pot when well grown, but like the other species it is most beautiful when planted in the border of the conservatory. There are several varieties in the garden of the Horticultural Society, some of which have the bracts of a deeper colour than others.

34



Miss Drake del. Pub by J Ridgway 169 Piccadilly June 1. 1841 G Barclay sc

CATASĒTŪM Trūllă.

The Trowel-shaped Feeler-wort.

GYNANDRIA *MONANDRIA*,

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
CATASETUM. Richard.

C. *Trulla;* sepalis petalisque patentibus ovalibus planis, labello latè ovato acuminato obtuso subcordato concavo fimbriato apice lævi, columnâ brevi cirrhatâ. *Lindl. in Bot. Reg.* 1840. *misc. no.* 176.

No doubt a native of some of the tropical parts of America, but I have been unable to learn from what country it was received. I am only acquainted with it indeed from a single specimen brought to me in September 1840, by Mr. James Rigby, of the Stanhope Nursery, Old Brompton. It had the general appearance of Catasetum maculatum, and bore thirty such flowers as are here represented. They had a most singular appearance, but it must be confessed not a beautiful one; none of the colours being at all lively. The lip has much the form of a trowel, and is not at all hollowed out into a bag. It is merely concave like the bowl of a spoon.

All the species of Catasetum require nearly the same cultivation. They must have a moist stove to grow in, should be kept nearly dry during their season of rest, and should have plenty of water when growing. When the young shoots begin to grow, they are very apt to be injured by water lodging about them, and care must be taken to prevent this.

As there is some confusion among the names of the various species of this genus, the following catalogue of all that I at present know may be acceptable to the readers of the Botanical Register.

June, 1841.

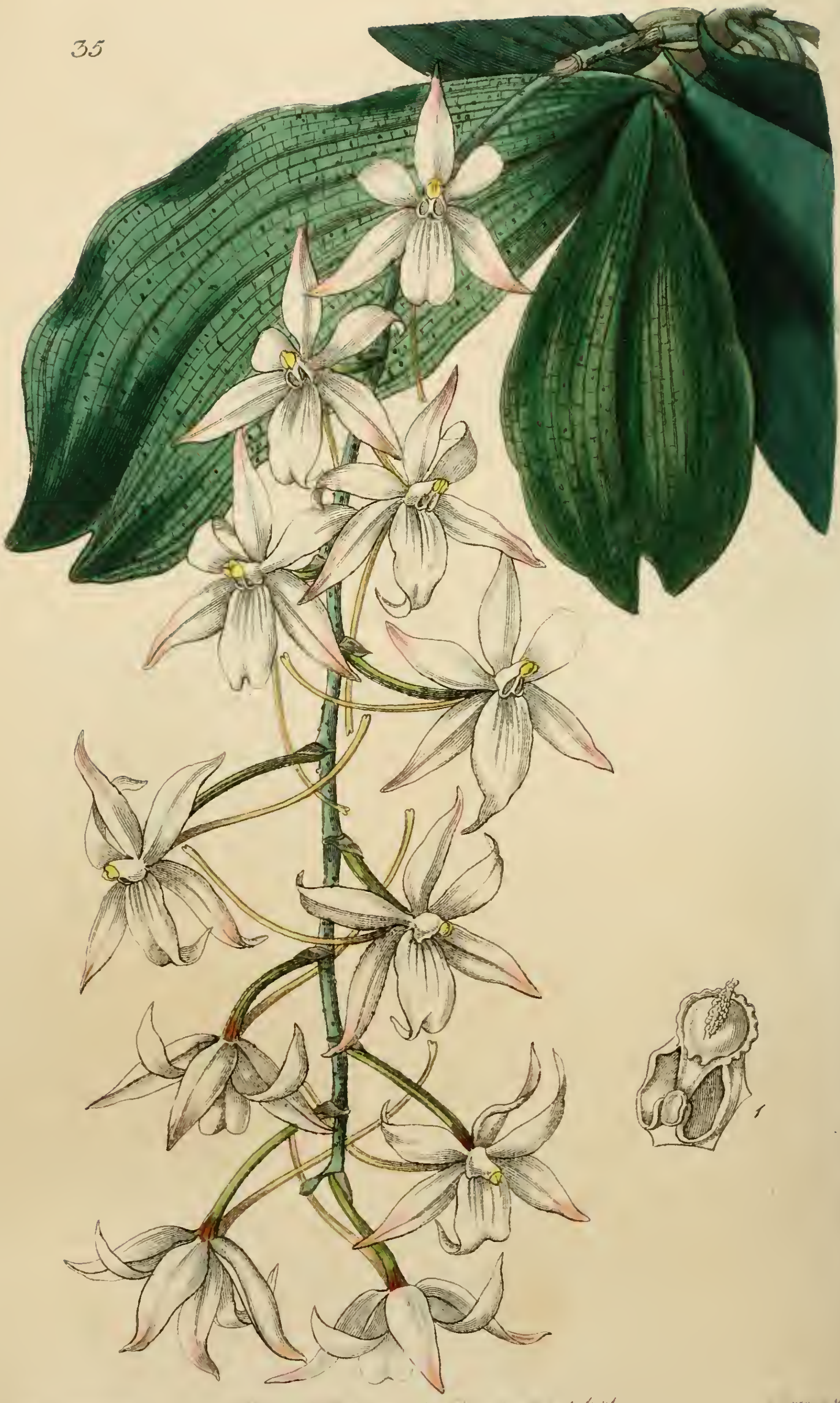
§ 1. Catasetum. Lip hooded, convex, placed at the back of the flower.

1. C. tridentatum. *Hooker.*
    Varieties.—C. macrocarpum, *Rich.* — Claveringi, *Lindl.* — floribundum, *Hooker.*
    Monster. Monachanthus viridis, *Lindl.*
2. C. maculatum, *Kunth.*
    Variety.—C. integerrimum, *Hooker.*
3. C. Hookeri, *Lindl.*
4. C. semiapertum, *Hooker.*
5. C. purum, *Nees.*
6. C. luridum, *Lindl.* (Anguloa lurida, *Link.)*
7. C. longifolium. *Lindl.*
8. C. discolor. (Monachanthus discolor, *Lindl.)*
    Variety.—Monachanthus Bushnani, *Hooker.*
9. C. roseo-album, *Lindl.* (Monachanthus roseo-albus, *Hooker.*) Probably a variety of the last.
10. C. atratum, *Lindl.*

§ 2. Myanthus. Lip flat, placed in front of the flower.

11. C. cristatum, *Lindl.*
    Varieties.—C. spinosum, *Lindl.* (Myanthus spinosus, *Hooker.*) C. proboscideum, *Lindl.*—C. barbatum, *Lindl.*
12. C. cornutum, *Lindl:*
13. C. lanciferum, *Lindl.*
14. C. deltoideum, *Lindl.* (Myanthus deltoideus, *Lindl.*)
15. C. trifidum, *Hooker.* (Myanthus cernuus, *Lindl.*)
16. C. saccatum, *Lindl.*
17. C. laminatum, *Lindl.*
18. C. Russellianum, *Hooker.*
19. C. Trulla, *Lindl.*
20. C. poriferum, *Lindl.*
21. C. callosum, *Lindl.*

35



[illegible] 169 Piccadilly Feb 1 1841

ANGRÆCUM bilobum.

Two-lobed Angurek.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
ANGRÆCUM. Botanical Register, vol. 18. *fol.* 1522.

A. *bilobum*; caule brevissimo, foliis cuneato-obovatis oblique bilobis reticulatis racemo verrucoso pendulo multifloro multo brevioribus, sepalis petalisque lanceolatis patentibus, labello conformi paulo majore calcare filiformi emarginato breviore. *Bot. Reg.* 1840. *misc. no.* 151.

Anthera *cristata, unilocularis.* Pollinia *dorso excavata, alba.* Glandula *alba.* Rostellum *trans stigma, quod anticè in sinum recedit, arctè deflexum, marginique sinus attingens superficiem stigmaticam in duabus partibus dividere videtur.*

A strikingly pretty epiphyte, with a very short stem, and a few distichous obovate leaves, deeply two-lobed at the apex, and streaked with firm veins from the apex to the base, which veins are connected by strong transverse bars. The flowers grow in pendulous simple racemes, and are slightly but sweetly perfumed; their colour is white, with a slight tinge of blush.

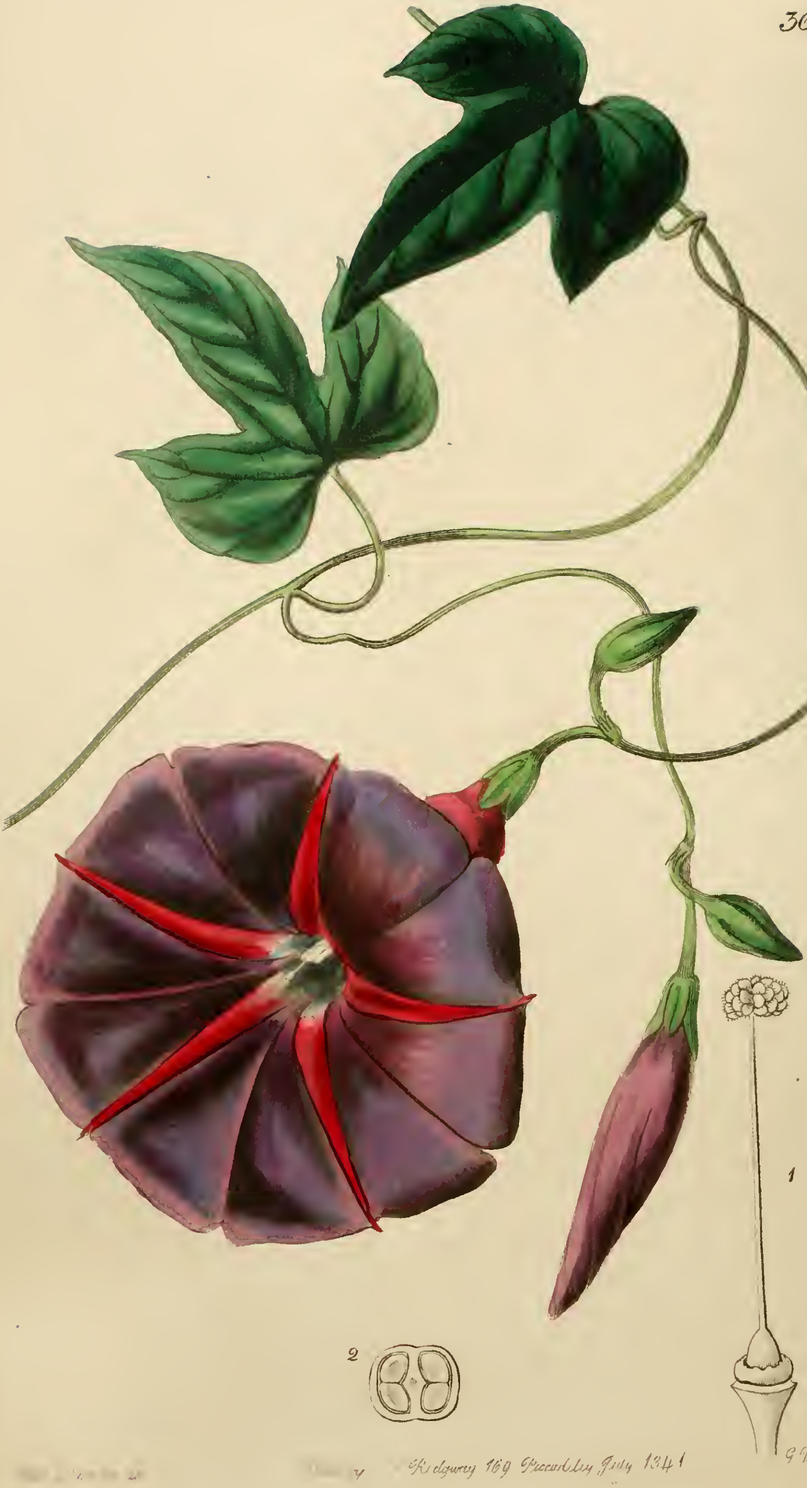
The column is remarkable enough; the anther (fig. 1.) is decorated by a glandular crest, like that of an ancient helmet. Below this is a broad shallow stigma. Over the stigma projects the beak of the column, which protrudes so far as to rest on the anterior edge of the stigma, which itself recedes in order to meet the gland; and thus the stigma seems to be divided into two parts.

Messrs. Loddiges received this species from Mrs. Lee, the widow of the late Mr. Bowdich, who found it at Cape Coast Castle.

July, 1841.

To be cultivated successfully, it should be suspended from the rafters of the Orchidaceous house upon a block of wood. The block should be surrounded with a little turfy peat or sphagnum, to retain the moisture upon which the roots feed. If sphagnum is used, care must be taken that it does not come in contact with the more tender part of the plant, as it is apt to rot them. In this condition it should be freely syringed during the growing season, and never at any time be kept too dry.

36



Ridgway 169 Piccadilly July 1841

G Barclay sc

IPOMŒĂ batatoĭdĕs.

The Male Jalap.

PENTANDRIA *MONOGYNIA.*

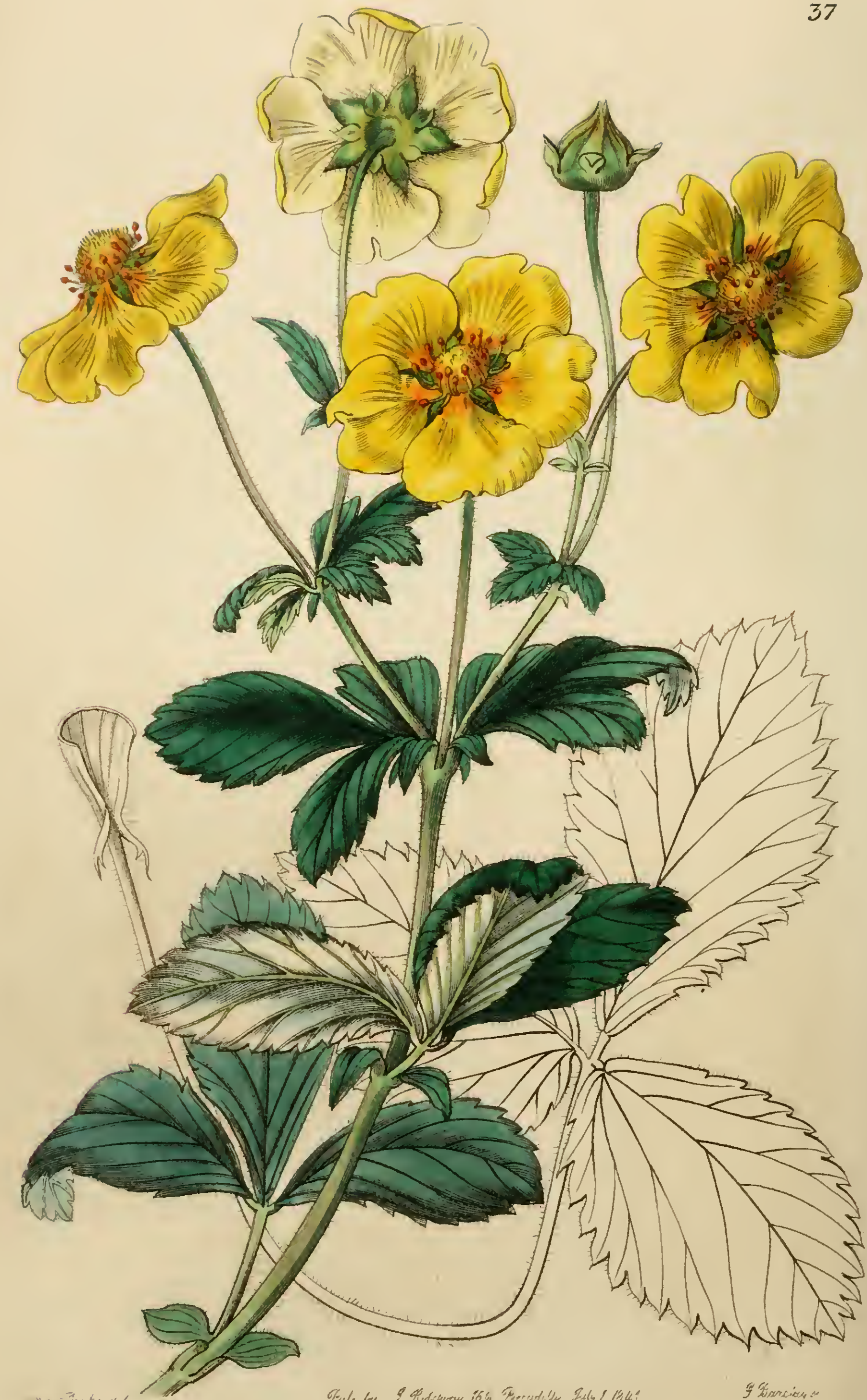
Nat. ord. CONVOLVULACEÆ.
IPOMŒA. Bot. Reg. vol. 4. *fol.* 270.

I. *batatoides;* caule volubili pubescente, foliis profundè 3-5-lobis laciniâ intermediâ subrhombeâ acuminatâ lateralibus angulatis integrisque supra ad venas et subtùs sparsè piloso-pubescentibus, pedunculis 1-2-floris folio sublongioribus, sepalis inæqualibus uno alterove acuminato, corollæ elongatæ infundibuliformis tubo ampliato. *Bentham plant. Hartw. p.* 46.

It was for many years uncertain what the plant is which furnishes the Jalap of the shops. The upright Marvel of Peru was at one time thought to produce it; then the Ipomœa macrochiza of North American Botanists was taken for its parent, and also Ipomœa pandurata. But it now turns out that Jalap comes from none of these. The drug derives its name from the town of Xalapa in Mexico, in the woods near which it is collected; Deppe and Schiede being there, found the gatherers of it digging it up, and so possessed themselves of living roots, which, upon flowering in Munich, proved to be a species of Convolvulaceous plant before unknown, and received the name of Ipomœa Purga; under which it is now known in our gardens, although it is in reality a species of Exogonium. But it was also ascertained that other species supply the Jalap gatherers; and Mr. Hartweg has been so fortunate as to acquire at Mestitlan one of them, the Purga Macho, of which he sent two roots to the Horticultural Society. They are larger and longer than those of Exogonium Purga, and have produced the beautiful flowers now represented.

So beautiful indeed are they, that a rival to them can hardly be found in this most lovely race. The stems do not ramble so much as some do, nor are the leaves so abundant as to overshadow and conceal the flowers; but the latter stand forward from before the foliage, and fully expand themselves in the early part of the day. At that time their brilliancy is far beyond any thing that we have the means of representing.

Its management is of the easiest kind, and like all plants having a large tuberous root, it should be kept in a dry and warm situation during the winter. As soon as it begins to start, it should be watered, sparingly at first and freely afterwards. The soil should consist of equal parts of loam, peat, and leaf-mould, with a little sand. It seems to require a higher temperature than the common greenhouse, but not so high as the damp stove. By growing it in the stove it may be had in flower early in spring, but its natural period of flowering in this country seems to be in the end of summer, and autumn. Its habit of growth is not so strong as many of the other species, and it continues to flower for a very long time. It is easily multiplied by cuttings.



Miss Drake del

Pub by J Ridgway 169 Piccadilly July 1 1841

G Barclay sc

POTENTĪLLĂ insīgnĭs.

Specious Cinquefoil.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. ROSACEÆ.

POTENTILLA. Botanical Register, vol. 16. *fol.* 1387.

P. *insignis;* caule ascendente multifloro, foliis ternatis (nunc quinatis) radicalibus longè petiolatis: lobis ovalibus obovatisque crenato-serratis suprà viridibus subtùs incanis, stipulis ovatis obtusis integris multifidisque, laciniis calycinis ovatis acutis, petalis subrotundis emarginatis calyce duplò longioribus.

P. insignis. *Royle ined.*

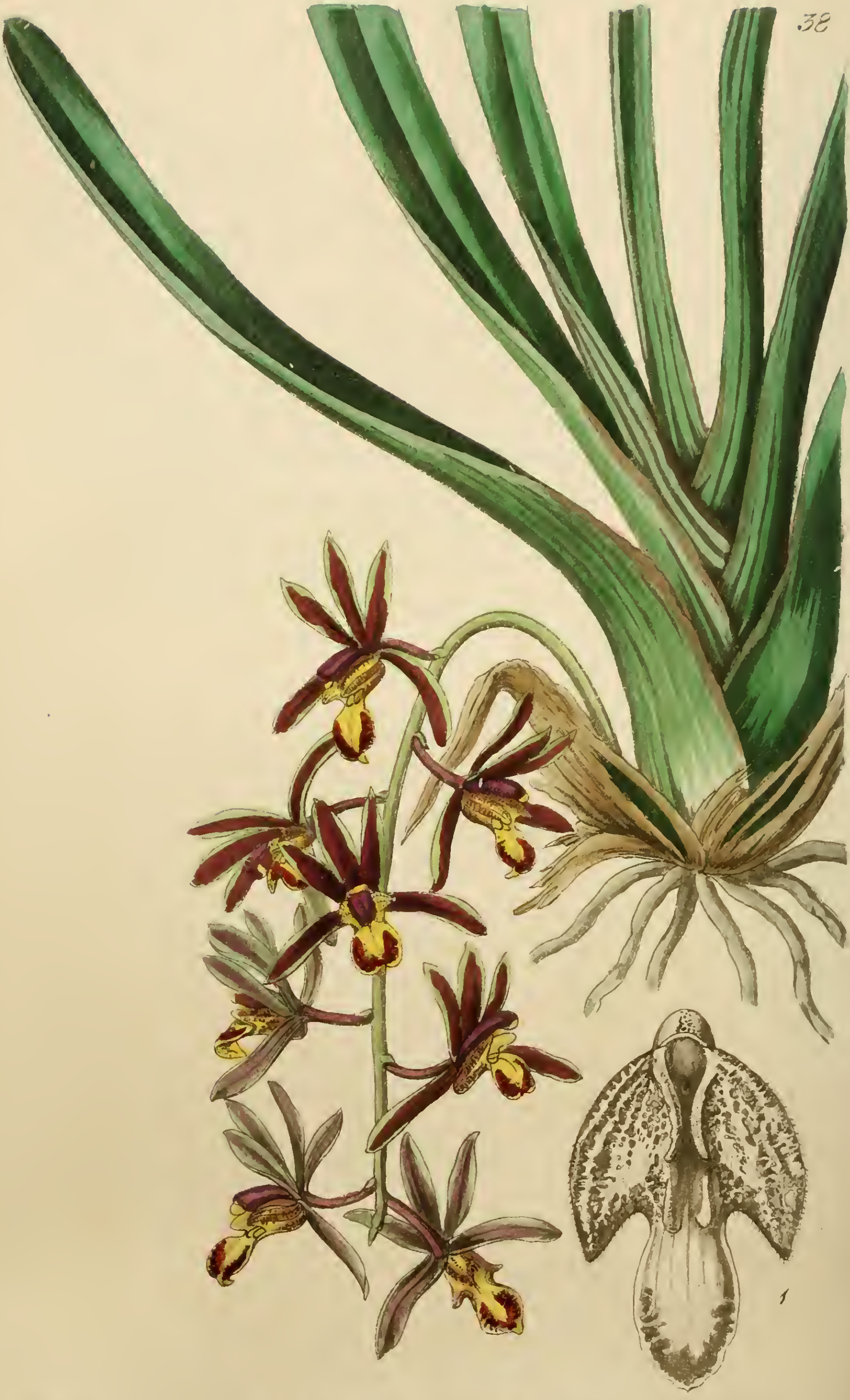
The genus Potentilla abounds in species, or what are called so, of which there is no recent general enumeration, and concerning which there is the greatest difficulty in coming to any satisfactory conclusion. With respect to the plant now before us, which was raised from Indian seeds, presented to the Horticultural Society by the Court of Directors of the East India Company, I find it extremely difficult to come to any certain conclusion.

It is undoubtedly the P. insignis of Dr. Royle's mss.; but how does that differ from P. argyrophylla? The latter has leaves more coarsely serrated, and much more strongly veined, and not so obtuse; otherwise it is extremely like it; and it is difficult to suppose it really distinct. And then again is the latter distinct from the Altai P. macrantha, a smaller species indeed, and erect not ascending, but very like it? These enquiries lead to the further question of how far P. leucochroa deserves to be regarded as distinct; that plant indeed has the leaves grey on the upper side with silken hairs, and seems to be quite erect; but it comes from Chinese Tartary, and climate may cause the differences. Then, again, Dr. Lehmann says that P. leucochroa is the same as the Unalaschkan and Arctic American P. villosa, a plant I do not know. So that one cannot help suspecting that *P. insignis*, *argyrophylla*, *macrantha*, *leucochroa*, and *villosa* may be all one and the same thing, modified by soil and situation. In the meanwhile this is certainly *P. insignis.*

It is a hardy perennial, requiring the same treatment as the old Potentilla atrosanguinea, flowering from June to September. It was raised from seeds received from the East India Company through Dr. Royle, and seems very common in the North of India, as it is in nearly every collection of seeds received from that part of the world.

It may be the means of producing some beautiful hybrids, with either P. atrosanguinea or P. nepalensis ; and we should expect that they will some day rival the hybrid Calceolarias, now so common.

38



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CYMBĪDĬŪM pubēscēns.

Downy-lipped Cymbidium.

GYNANDRIA *MONANDRIA.*

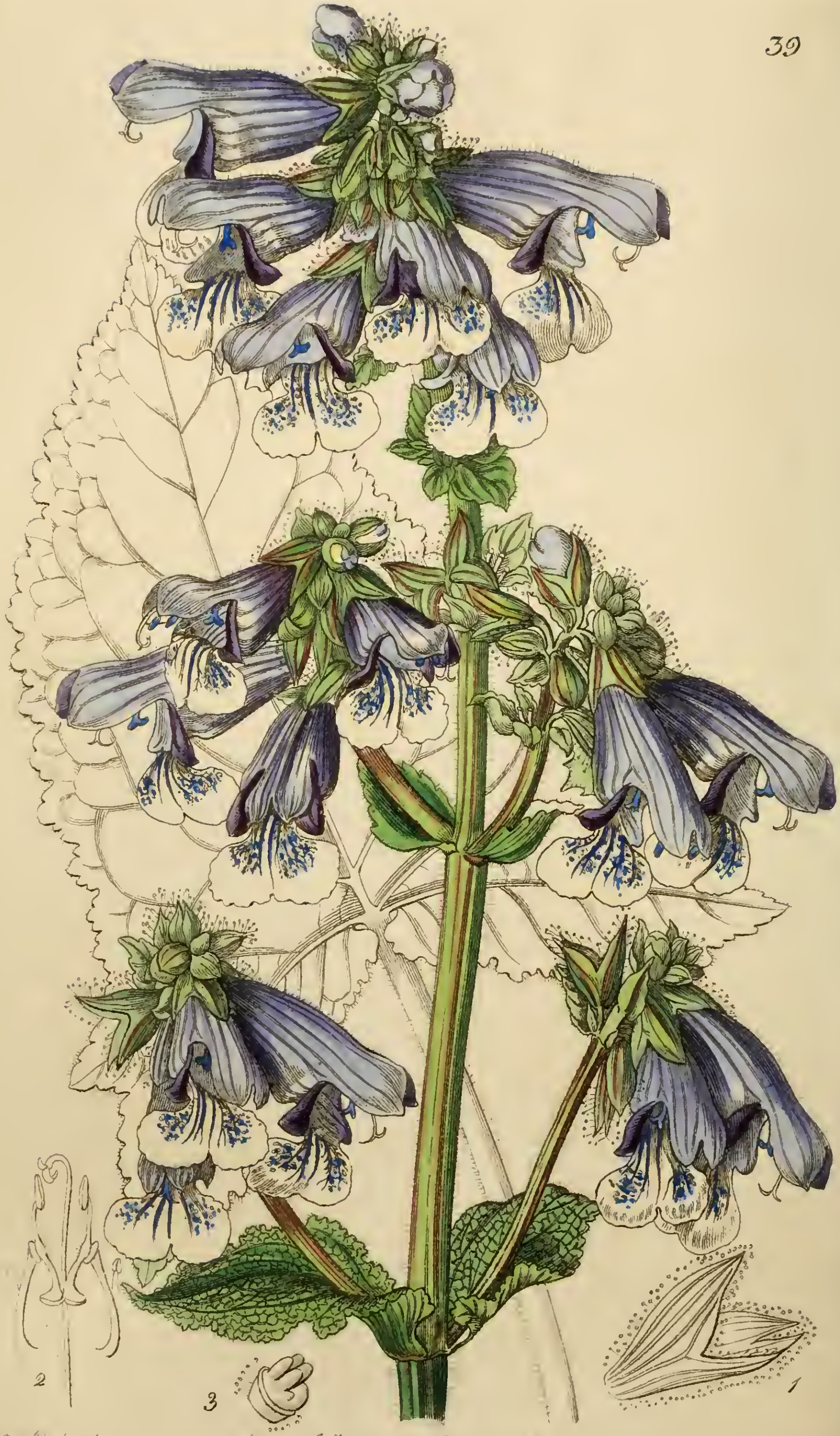
Nat. ord. ORCHIDACEÆ, § VANDEÆ.
CYMBIDIUM. Botanical Register, vol. 7. fol. 529.

C. *pubescens;* foliis ensiformibus striatis apice obliquè bidentatis, racemo brevi pendulo, bracteis minimis squamæformibus, sepalis petalisque linearibus acutiusculis, labelli trilobi basi saccati intùs pubescentis laciniis lateralibus acutis intermediâ oblongâ subundulatâ obtusâ, lamellis rectiusculis medio interruptis. *Bot. Reg.* 1840. *misc.* 177.

Although the woods of Sincapore have been so often examined by Botanists it seems as if the forms of vegetation there were inexhaustible. The species now figured was met with by Mr. Cuming who sent it to Messrs. Loddiges. It is quite distinct from all the species previously published, although no doubt allied to C. *Finlaysonianum* and *bicolor*. From the former it differs in having short racemes, smaller flowers, and a hairy lip, with the lamellæ nearest the end destitute of any appendage. From *C. bicolor* also the short racemes and hairy lip divide it; but it corresponds with that species in the remarkable character of a shallow bag being present at the base of the lip.

Although not very conspicuous, the rich crimson green and yellow markings give the flowers a gay appearance. Fig. 1. is a view of the lip magnified.

It must be cultivated along with other orchidaceous plants in the moist stove. In potting it the roots need not be raised above the surface of the pot, as its habits appear to be rather of a terrestrial nature. The pots should be well drained, and water should be freely given during the growing season, and at no season must it be kept entirely dry.



Miss Drake del. Pub by J. Ridgway 169 Piccadilly July 1 1841 G Barclay sc.

SĀLVĬĂ hĭāns.

Gaping Sage.

DIANDRIA *MONOGYNIA.*

Nat. ord. LAMIACEÆ, or LABIATÆ.
SALVIA. *Botanical Register, vol.* 4. *fol.* 347.

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§ III. *Drymosphace.* *Calyx* tubulosus v. campanulatus, labio superiore subintegro truncato v. brevissime tridentato. *Corollæ* tubus exsertus, intus piloso-annulatus; labium superius falcato-compressum, inferioris lobi laterales patentes. *Connectiva* posticè porrecta, loculum difformem cassum ferentia, extremitate subconnexa. *Bentham Labiat. p.* 218.

S. *hians;* caule herbaceo erecto villoso, foliis longè petiolatis lato-ovatis basi latè cordato-sagittatis, floralibus ovatis acuminatis calyce brevioribus, racemis subramosis verticillastris sexfloris, calycis campanulati striati colorati glutinosi labio superiore integro truncato inferiore longiore, dentibus ovatis acutis, corollis calyce triplò longioribus, tubo exserto, fauce ampliatâ, limbo hiante, labio superiore falcato compresso, inferiore lato patente, connectivis posticè porrectis utrinque antheriferis, loculis posterioribus cassis subconnexis. *Bentham l. c.* 219,

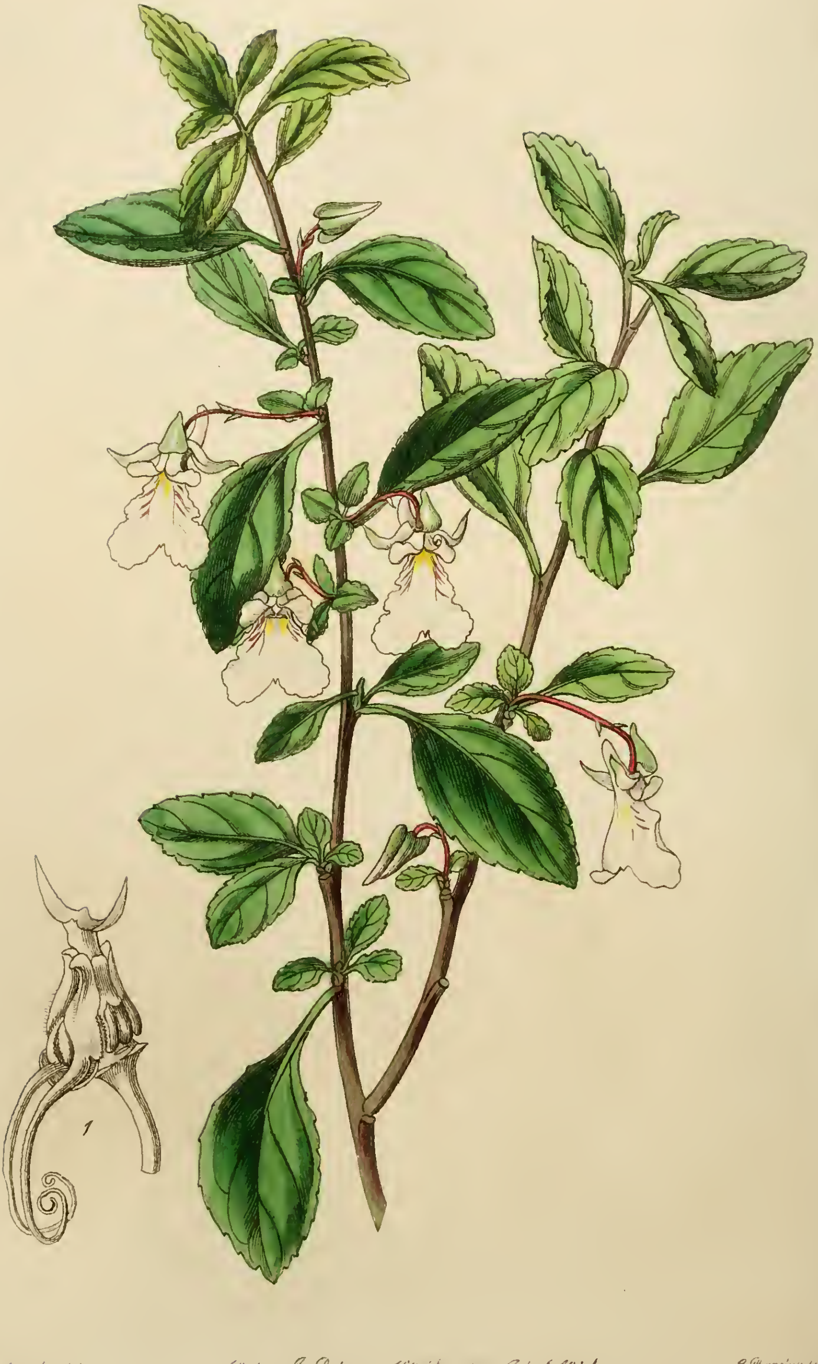
S. hians. *Bentham in Hook. Bot. Misc.* 3. 373. *Royle's Illustrations, p.* 303. *t.* 75. *a. f.* 2.

This is a very ornamental hardy herbaceous plant, introduced from Cashmere, by the Court of Directors of the E. I. Company. It was first met with by Dr. Royle's collectors, and afterwards by M. Jacquemont, in upland pastures. Certainly it is one of the gayest of our perennials, in consequence of the striking contrast between the white and blue of its large flowers.

As I have never seen an authentic specimen of the plant I cannot absolutely affirm that it is identical with what is figured in Dr. Royle's illustrations; and at first sight it even appears to be different; for the latter has no white in the corolla, and the stamens are coloured yellow, not blue as they are in the plant before us. Nevertheless I find no distinction except that of colour, and as Mr. Bentham states Jacquemont's plant to have flowers variegated with violet and white, it is to be presumed that these differences are unimportant.

This perennial grows about a foot high, and flowers in May and June. It is easily increased by dividing the old plant in the autumn or spring, is perfectly hardy, and was raised from seeds received in 1839. The seedling plants will not flower before the second season.

Fig. 1. represents the calyx all covered with viscid glandular hairs; 2. shews the stamens in their natural position, with two abortive ones at the sides, and the two ordinary ones in the centre; 3. is the four-lobed ovary.



Miss Drake del.   Pub by J. Ridgway 169 Piccadilly July 1 1841   J. Barclay sc.

* SCHWEIGGĔRĬĂ pauciflōră.

Few-flowered Prong-violet.

PENTANDRIA *MONOGYNIA.*

Nat. ord. VIOLACEÆ.

SCHWEIGGERIA. Spreng. Calyx profunde quinquepartitus, laciniis valde inæqualibus, tribus posticis multo majoribus, hastato-cordatis, in pedunculum subdecurrentibus, duobus anticis minimis, angustis. *Corollæ* petala 5, imo calyci inserta, valde inæqualia, persistentia, antica lateralibus breviora, posticum maximum, basi calcaratum. *Stamina* 5, subperigyna, petalis alterna, inæqualia; *filamenta* brevissima, *antheræ* introrsæ, biloculares, complanatæ, adnatæ, apice in appendicem membranaceum productæ, loculis longitudinaliter dehiscentibus, duarum anticarum connectivis in appendices subulatas, liberas, intra calcar reconditas productis. *Ovarium* subglobosum, uniloculare, placentis parietalibus tribus. *Ovula* plurima, anatropa. *Stylus* terminalis, clavato-dilatatus, incurvus, apice trilobus, lobis intus stigmatosis. *Capsula* ovata, perigonio et genitalibus emarcidis tecta, unilocularis, trivalvis, valvis medio seminiferis. *Semina* plurima, ovato-subglobosa, testa crustacea, rhaphe lineari elevata, ab umbilico prope basim sublaterali minute carunculato ad chalazam terminalem producta. *Embryo* in axi albuminis carnosi orthotropus, *ejusdem longitudine, radicula umbilico proxima, centrifuga.*—— Frutices *brasiliensis;* foliis *alternis, ovatis v. lanceolatis, denticulatis,* stipulis *lateralibus, geminis, minutis, pedunculis axillaribus, solitariis, unifloris, superne bibracteatis, supra bracteas articulatis.* Endlicher genera, no. 5044.

S. *pauciflora;* foliis e basi longè attenuatâ obovatis spathulatis obtusis crenato-serratis, pedunculis axillaribus (labello lineis duabus elevatis glandulosis). *Martius nov. gen. & sp. pl.* 1. *p.* 23; *sub* Glossarrhene.
Glossarhen pauciflorus. *DeCand. prodr.* 1. 291.

Frutex *parvus, erectus, glaber; ramulis compressis, lineâ elevatâ alatâ a basi foliorum utrinque decurrente.* Folia *oblonga v. obovata, in petiolum angustata, crenaturis glandulosis; utrinque stipulâ squamæformi, stipata.* Pedicelli *axillares, pubescentes, bracteolati, nunc bracteolarum loco foliosi; bracteolis basi et apice utrinque glandulosis.* Sepala 5, *basi haud producta; quorum dorsale ovatum undulatum, pallidè virens, anterioribus omnino albis paulo majore; duo interiora minima, alba, apice tridentata; dente intermedio elongato glanduloso.* Petalorum *alborum inferius maximum, calcaratum, cuneatum, bilobum, lineis duabus elevatis glandulosis luteis pone basim.* Stamina *sessilia, libera;* antherarum *appendice terminali rotundatâ, membranaceâ, anteriorum dorsali filiformi apice involutâ.* Stigmatis *trilobi laciniis lateralibus lanceolatis ascendentibus, intermediâ obsoletâ dentiformi.*

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* So named after Professor Schweigger, one of the authors of a Flora of Erlangen.

The name Schweiggeria was originally given by Sprengel to a Brazilian shrub, of which he examined specimens in a dried state, and described in his usual unskilful manner. At a later period Von Martius, not recognizing the genus by the former author's character, called it Glossarrhen, from *γλωσση*, a tongue, and *αῤρεν*, a male, in allusion to the processes which proceed from the front anthers, see fig. 1. and which look very like the rolled up tongue of a butterfly. The right of priority, however, requires that the first name should be preserved.

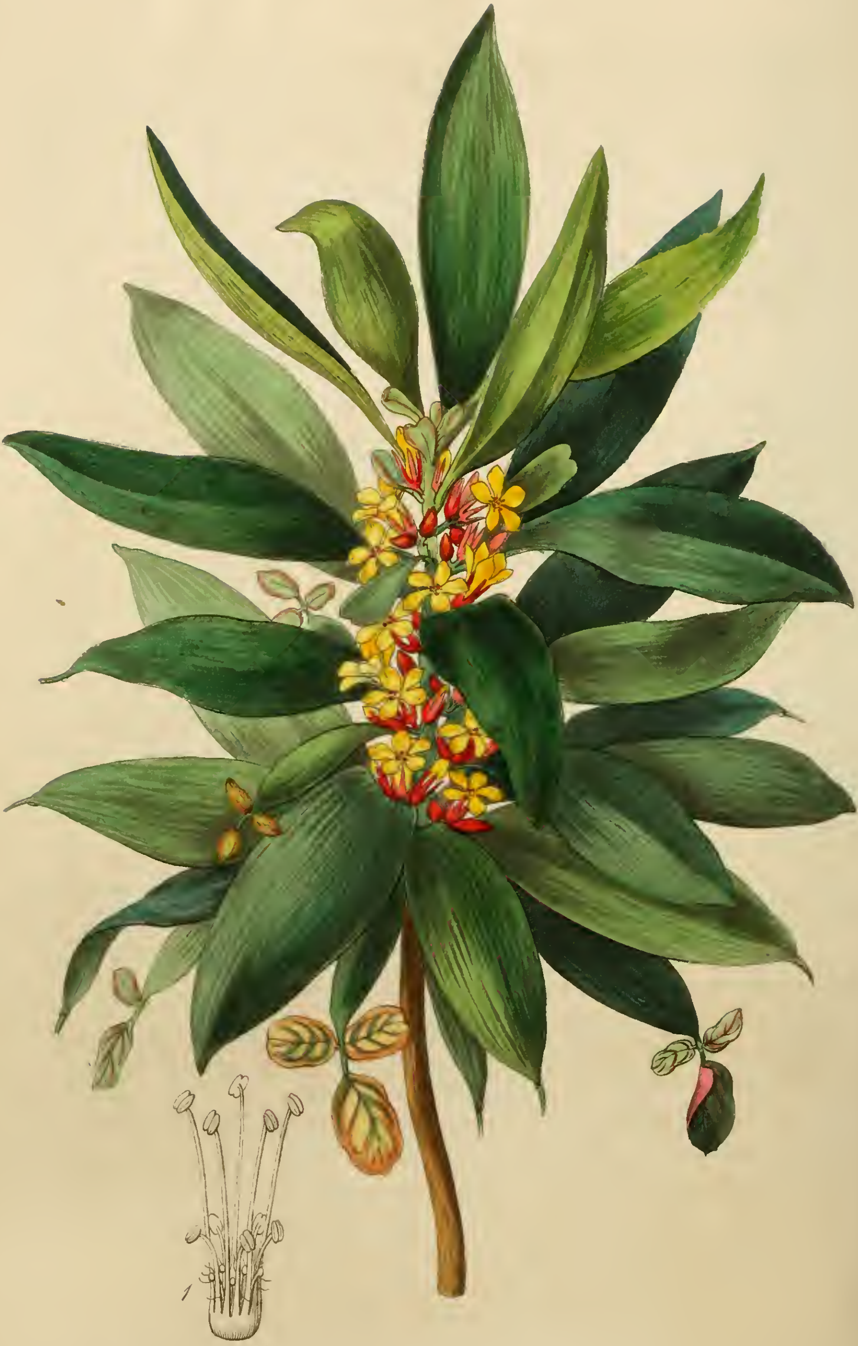
The only two species are bushes inhabiting Brazil; one of them in mountainous places, and woods in the province of St. Paul's; the other, which is now figured, in wet shady stony places near the river Itahype in the province of Bahia. They are very nearly Violets; but differ in having a calyx whose divisions are extremely unequal, three being large and heart-shaped at the base, but not decurrent, the other two being very small and enclosed within the others. The stigma too has a different form from that of Viola.

Our drawing was made in the nursery of Messrs. Loddiges, who imported the species. It is a stove shrub, requiring the same kind of cultivation as Ixoras and plants of that description.

Fig. 1. represents the apparatus in the interior of the flower; that is to say, the stamens with their membranous appendages, and the two tongue-shaped processes, and the tip of the style surmounted by a two-pronged stigma.

M. Auguste de St. Hilaire seems to doubt whether there is really more than one species of this genus; but it is evident that the plant he has figured under the name of Schweiggeria floribunda in his *Plantes remarquables du Brésil et du Paraguay* must be different from this, if any dependence can be placed upon his drawing of the labellum. The species distributed from the Vienna herbarium, under the number 192, appears to be the latter.

41



Pub. by J. Ridgway 169 Piccadilly Aug 1 1841 G. Barclay sc

ŌXĂLĬS fruticōsă.

The Shrubby Wood-sorrel.

DECANDRIA *PENTAGYNIA.*

Nat. ord. OXALIDACEÆ.

OXALIS. Botanical Register, vol. 2. *fol.* 117.

SECT. Phyllodoxys, *Endl.; caulescentes, suffruticosæ, caule folioso, petiolis sæpissimè aphyllis foliaceo-dilatatis.* Endl. gen. no. 6058.

O. *fruticosa;* caule suffruticoso ramoso, petiolis dilatatis foliaceis lanceolato-linearibus utrinque acutis subaphyllis, pedunculis axillaribus valdè abbreviatis 2-fidis, pedicellis subfasciculatis, staminibus omnibus pistillo longioribus, ovarii loculamentis monospermis. *Aug. St. Hilaire Flora Brasiliæ meridionalis, vol.* 1. *p.* 116.

O. fruticosa. *Raddi in mem. ital. vol.* 18. *p.* 401. *DeCand. prodr. vol.* 1. 690.

Nothing in the Vegetable Kingdom is more curious than the way in which plants are enabled to alter one organ, so as to perform the office of another, when that other is from any cause destroyed, or undeveloped. Thus in Cactaceous and other succulent plants which have no leaves, the surface of the stem is greatly enlarged, and performs the office of breathing and digesting; in the Combretum, which has no tendrils to climb with, the stalks of the leaves hook back, and furnish the plant with claws of strength; when, in the Wattle trees of our Australian colonies, nature refuses to command the appearance of leaves, straightway the leafstalks flatten and expand, and take their place; and so of multitudes of others.

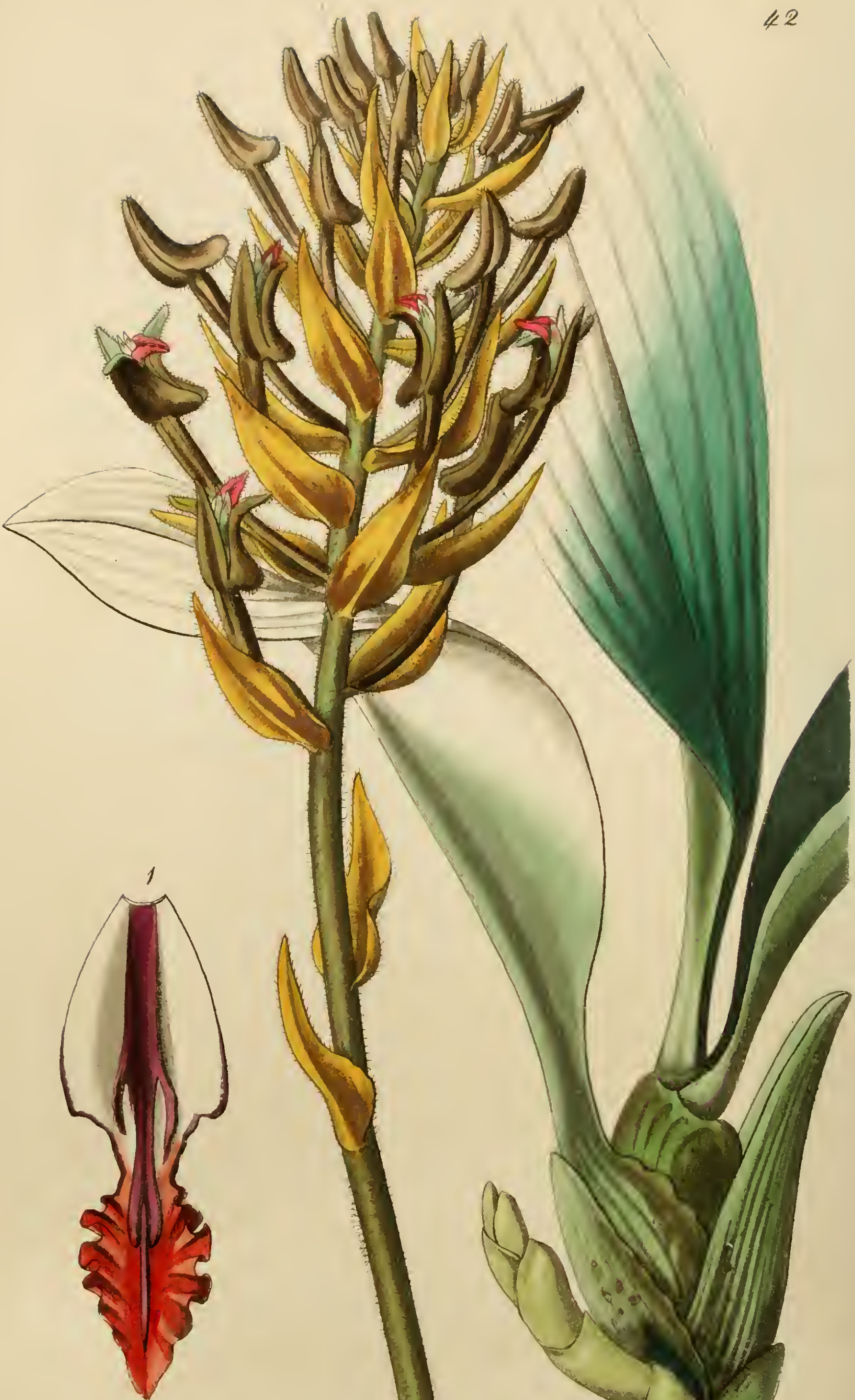
The plant before us is an illustration of this singular property. It is a Woodsorrel in every part of its organization, except indeed that it forms a woody stem and so becomes a shrub—and yet how entirely unlike a Woodsorrel is its appearance! Instead of the pretty irritable trefoil foliage so universal among those plants, it has broad lanceolate blades, with almost the veins of a Grass-leaf. Upon looking, however, with some care among the branches we detect here and there the triple foliage of the Woodsorrel at the ends of some of those blades, and so we learn that they too are flattened leafstalks, made into substitutes for the leaves which drop off.

Other species of this singular race of Woodsorrels occur in Brazil, but I am not aware of their having been found elsewhere. That before us inhabits the woods about Rio Janeiro, where it is by no means uncommon. For the specimen from which the accompanying drawing was taken I am indebted to His Grace the Duke of Northumberland.

Fig. 1. represents the stamens, and stigmata of the ovary enclosed within the tube of the former.

The habit is very different from the tuberous herbaceous kinds. It requires a higher temperature than the greenhouse, and is commonly grown in the moist stove. The soil should consist of equal parts of peat, leaf-mould, and loam. It is propagated by cuttings, or by a careful division of the roots. When seeds can be procured they should be sown in light soil on a gentle hot-bed.

42



Miss Drake del.   Pub by J. Ridgway 169 Piccadilly Augt 1 1841   G Barclay sc

ERĬĂ armenĭăcă.

Apricot-coloured Eria.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § MALAXIDEÆ.
ERIA. Botanical Register, vol. 9. *fol.* 904.

E. *armeniaca* (Lanatæ); pseudobulbis ovalibus compressis triphyllis, foliis oblongo-lanceolatis coriaceis lævibus, racemo tomentoso radicali basi vaginato stricto foliis æquali v. longiore, foliis scapi bracteisque lanceolatis acuminatis subcoriaceis (armeniacis), labelli lobis lateralibus dentiformibus intermedio rhombeo crispo; lamellis 5 rectis haud crispatis lateralibus abbreviatis divergentibus intermediâ versus apicem labelli productâ. *Bot. Reg.* 1841. *misc.* 70.

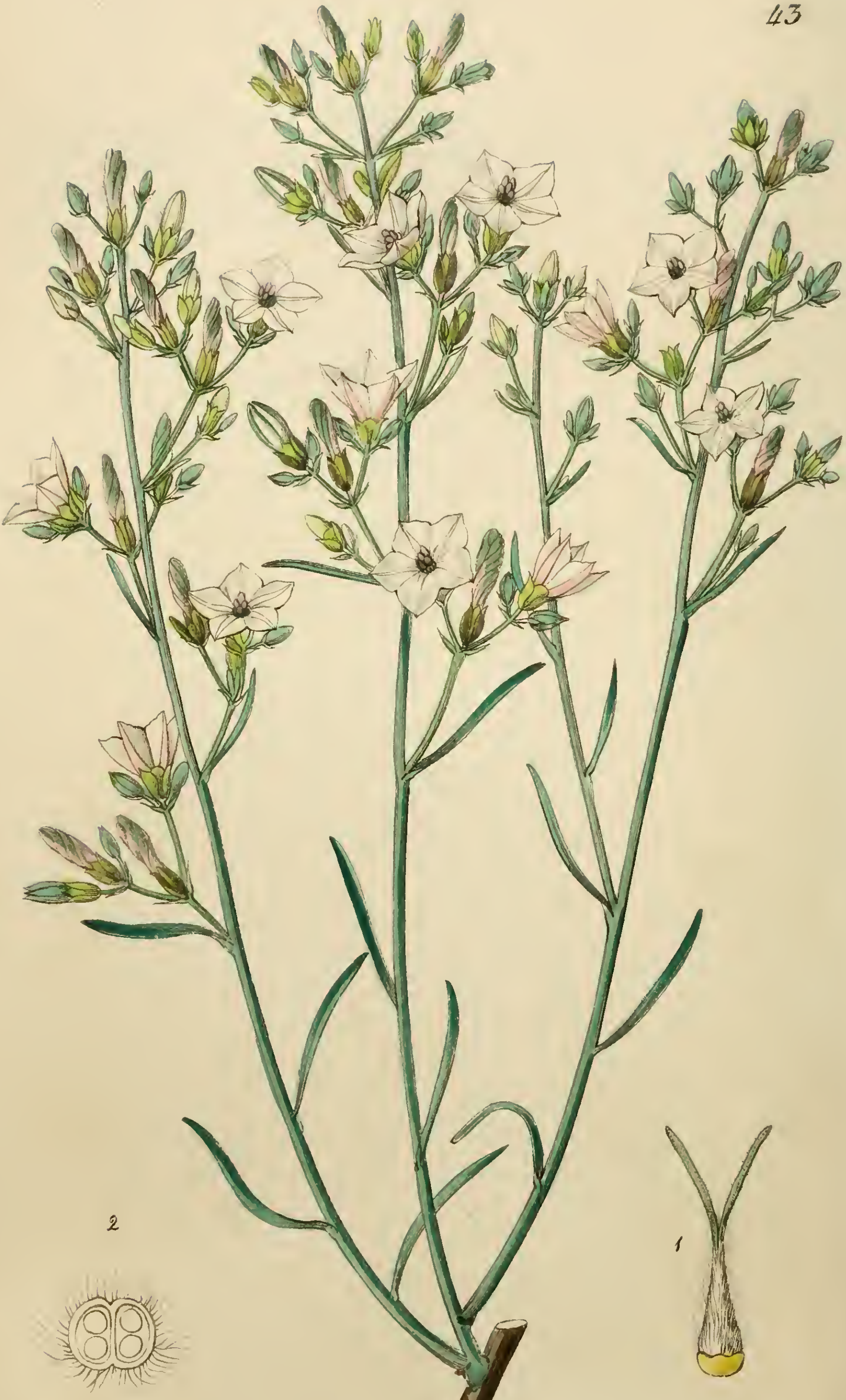
Of the many species of this large Orchidaceous genus there is no great number handsome enough to claim the attention of the cultivator; for their flowers are either pale, or small, or dingy. That however now represented is a decided exception to the general character of the species, its gay apricot-coloured bracts amply compensating for the dullness of the flowers themselves.

It belongs to a set in which the bracts are always richly coloured; but no others of which have yet been seen in Europe. Dr. Blume enumerates several; one with yellow, and another with red bracts changing to brilliant orange. Even here the interior of the flower will repay a careful examination, in consequence of the beautiful form and rich colouring of the lip, as shewn at fig. 1.

Mr. Cuming found it in the Philippine islands, in the I. dos Negros and elsewhere, and sent it to Messrs. Loddiges, with whom it has flowered. Its flowering stem is about a foot high.

It should be potted in turfy peat or sphagnum, and grown in the warmest end of a damp stove. It does not require so much heat and moisture during the resting season ; but the cultivator must not go to extremes with this, because it is very often injurious to the health and vigour of the plant.

43



Miss Drake del.

Pub by J Ridgway 169 Piccadilly Feb 1. 1841

G Barclay sc

CONVŌLVŬLŬS scopārĭŭs.

Canary Rosewood.

PENTANDRIA *DIGYNIA.*

Nat. ord. CONVOLVULACEÆ.
CONVOLVULUS. Botanical Register, vol. 2. *fol.* 133.

C. *scoparius;* erectus, fruticosus, ramosus, sericeus, foliis linearibus, cymis axillaribus multifloris erectis racemosis, corollæ plicatæ limbo 5-partito, staminibus limbo brevioribus, ovario villoso biloculari conico-acuminato, ovulis geminis, stylo nullo, stigmatibus linearibus.

Convolvulus scoparius. *Hortus Kewensis,* 1. 213. *Willd. sp. pl.* 1. 872. *Ventenat choix des plantes, t.* 24. *Römer & Schultes syst. veg.* 4. 299.

Breweria? scoparia. *Lindl. Flora Medica, p.* 400. *no.* 821.

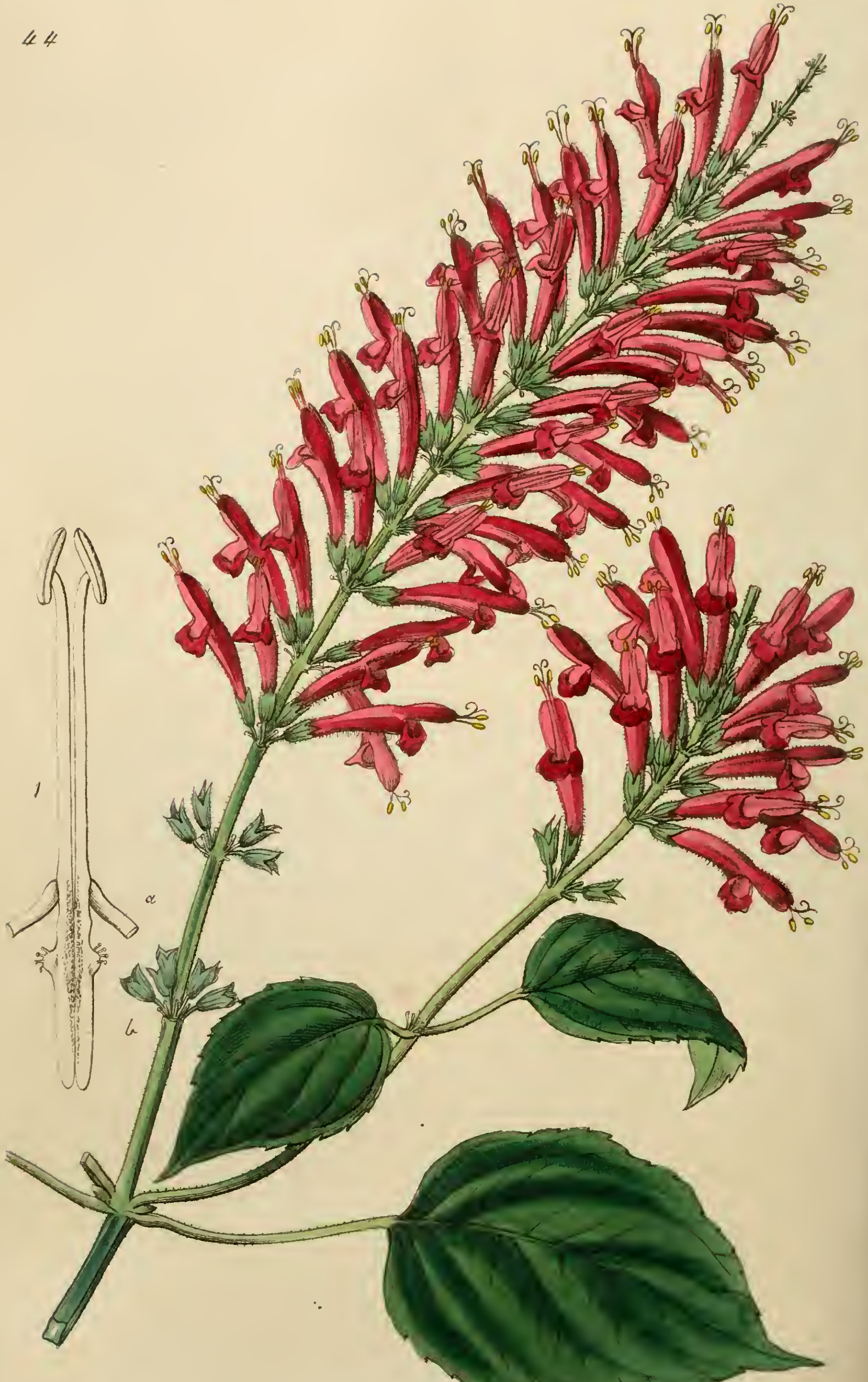
For an opportunity of figuring this curious little plant I have to thank Mr. Young, Nurseryman, Milford, near Godalming, who received it from Mr. Barker Webb. Whether or not it is mentioned in that gentleman's work on the Canaries I am unable, from the irregular and confused way in which the book is published, to ascertain. It appears on other testimony to occur near Santa Cruz, and elsewhere in the Canary islands.

Nothing can well be less like a Convolvulus than this, and I presume it will be removed from the genus when M. De Candolle revises the Convolvulaceous order. In the meantime I leave it there, partly from not wishing to interfere with the nomenclature about to be promulgated by M. DeCandolle, partly from not knowing what the fruit is, and in part from not being able to make up my mind in what of the modern genera it can be surely stationed. At one time I had placed it in *Breweria,* with a mark of doubt; and it may possibly belong there: but the narrow lobes of its style are not capitate, and are rather to be considered as stigmata sessile on the apex of a long-pointed ovary. Then there is a genus *Seddera,* proposed by Steudel and Hochstetter for an Arabian plant found by Schimper, but I am unacquainted with it, and Meisner reduces it to Breweria.

At all events this is the plant that yields *Lignum Rhodium*, a wood smelling strongly of roses, yielding by distillation a bitter oil, and employed by perfumers for adulterating or altering Oil of Roses. The roots which accompany the stems, as they are imported, are said to be much stronger scented than the stems. The old writers on drugs, misled by the name, imagined that this product must come from *Rhodes*, translating the name Rhodeswood, and after hunting in vain in the writings of either ancients or moderns for the plant that yields it, arriving at the erroneous conclusion that it was the Aspalath of the Greeks. It is however certain that the name really signifies Wood smelling of Roses. Oil of Rhodium is the name given to the oil obtained from this plant. The wood when powdered has been recommended to promote sneezing, and forms an agreeable snuff. It is valued for fumigation, and when burned diffuses a most delightful fragrance.

It is scarcely necessary to add that the Rosewood of cabinet-makers is quite different from this.

It is a half-shrubby plant, requiring the protection of the greenhouse during winter. It is increased by seeds, and requires about the same treatment as most of the other half-hardy species; namely, a rich loamy soil, and to be kept rather dry during the winter when in a dormant state. It flowers in September and October.



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SĀLVĬĂ tubĭfĕră.

Tube-flowered Salvia.

DIANDRIA *MONOGYNIA.*

Nat. ord. LABIATÆ, or LAMIACEÆ.
SALVIA. Botanical Register, vol. 4. *fol.* 347.

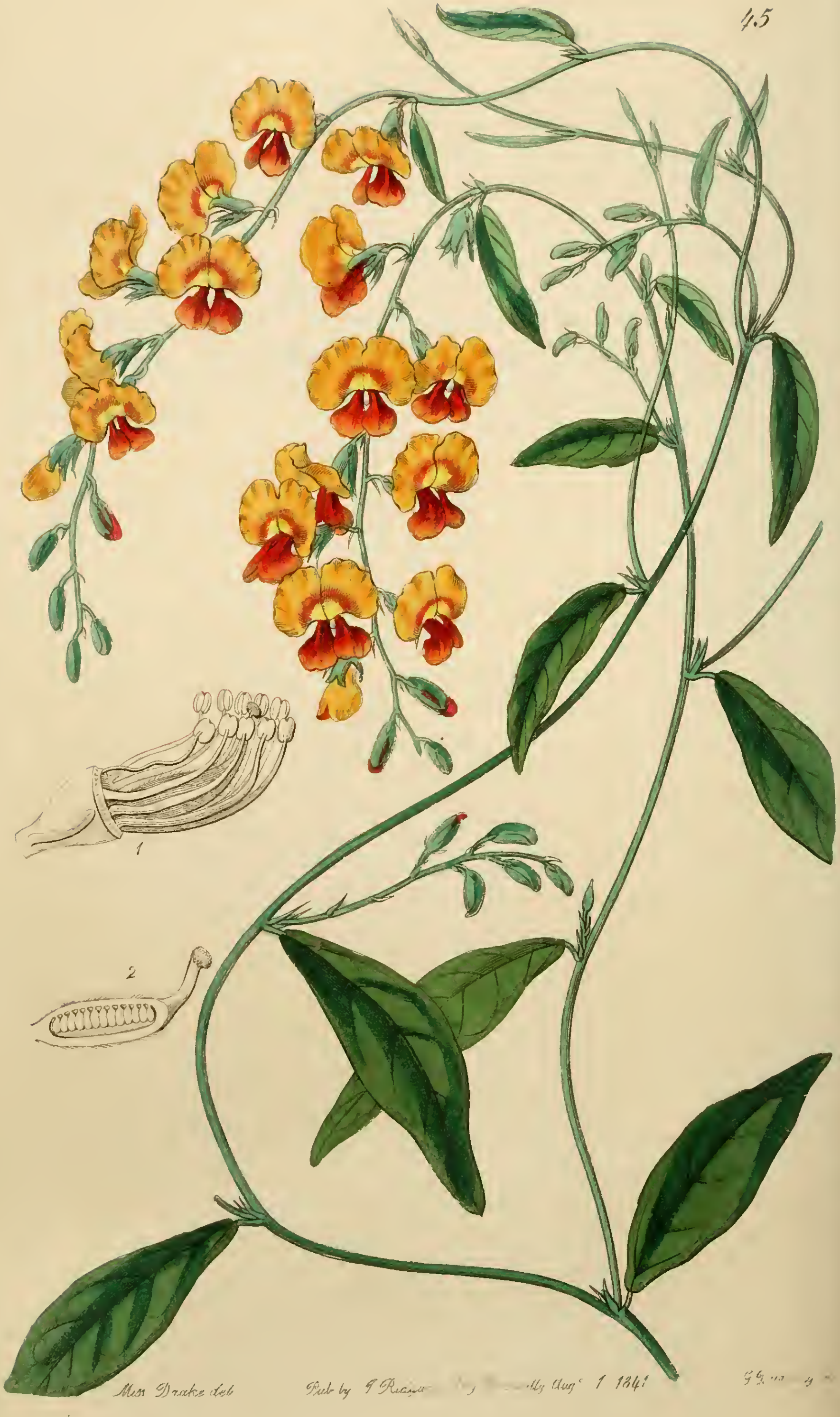
S. *tubifera;* caule herbaceo glabriusculo, foliis petiolatis lato-ovatis serrato-crenatis basi rotundato-truncatis vel subcuneatis glabriusculis v. subtùs cano-pubescentibus: floralibus deciduis, racemis simplicibus, verticillastris subsexfloris secundis, calycibus subsessilibus tubulosis striatis glabriusculis, labio superiore integro inferiorisque dentibus ovatis acuminatis, corollis calyce 3-4-plò longioribus extùs glabris v. pubescentibus, tubo longè exserto æquali subincurvo, labiis abbreviatis, superiore erecto integro inferiore breviore lobis rotundatis deflexis, medio integro, connectivis posticè breviter productis deflexis linearibus subdilatatis longitudinaliter connatis, stylo barbato. *Bentham gen. & sp. Labiatarum, p.* 298.
S. tubifera. *Cavan. ic.* 1. 23. *t.* 25. *Supra misc. no.* 40.
S. longiflora. *Willd. sp. pl.* 1. 141.

One of Mr. Hartweg's discoveries in Mexico, whence the Horticultural Society received the seed. It has much the habit of the old Salvia lamiifolia, otherwise called amœna, but is greatly superior in point of beauty. It forms a bush about three feet high, branching and well covered with leaves, and at the end of every one of the branches there appear the long racemes of slender purple flowers which are so disposed as to form a drooping or curving ornament. In colour they resemble those of such plants as Justicia elegans, and are very different from any of the other Sages now in our gardens.

Fig. 1. represents the curious stamens of this plant; *a* is a filament, by which they adhere to the corolla; and the perpendicular part from *b* up to the anther is the enlarged connective, which directs itself upwards and downwards in a narrow line, adhering at its base to the part of the other stamen which stands at its side. One lobe only of the anther is formed; in this instance the other lobe is indicated by a glandular dilatation seen on each side a little above *b*. This singular organization is, as botanical readers know, the chief character of the genus Salvia.

This pretty half shrubby species requires the same treatment as other Mexican ones, and strikes freely from cuttings of the young wood, but like all the small flowered Mexican kinds is not fit for planting in the open border during summer, as it only flowers at the latter part of autumn, and in the winter months.

45



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CHOROZĒMĂ spectăbĭlĕ.

Showy Chorozema.

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ, or FABACEÆ.
CHOROZEMA. Botanical Register, vol. 12. *fol.* 986.

C. *spectabile;* caule volubili tereti, foliis oblongo-lanceolatis mucronulatis subtus glabriusculis, racemis multifloris laxis, calycibus semiquadrifidis; laciniis tubo longioribus. *Supra misc. no.* 66.

A Swan River shrub of great beauty, in consequence of its long drooping clusters of orange-coloured flowers, which appear in profusion in the months of winter. It is far superior to both C. rhombeum and ovatum in all respects, and differs from them both in foliage and in its many flowered racemes, which however are not always so long as in the accompanying figure, although they often are so. C. ovatum has moreover winged branches and reticulated leaves, neither of which are found in this.

Fig. 1. represents the stamens and the tube of the calyx, with a linear bract adhering to it; it will be observed that the tenth stamen is smaller than the others, flexuose, and more slender. Fig. 2. shews the appearance of the ovary when cut through; it contains twenty-six ovules in two rows.

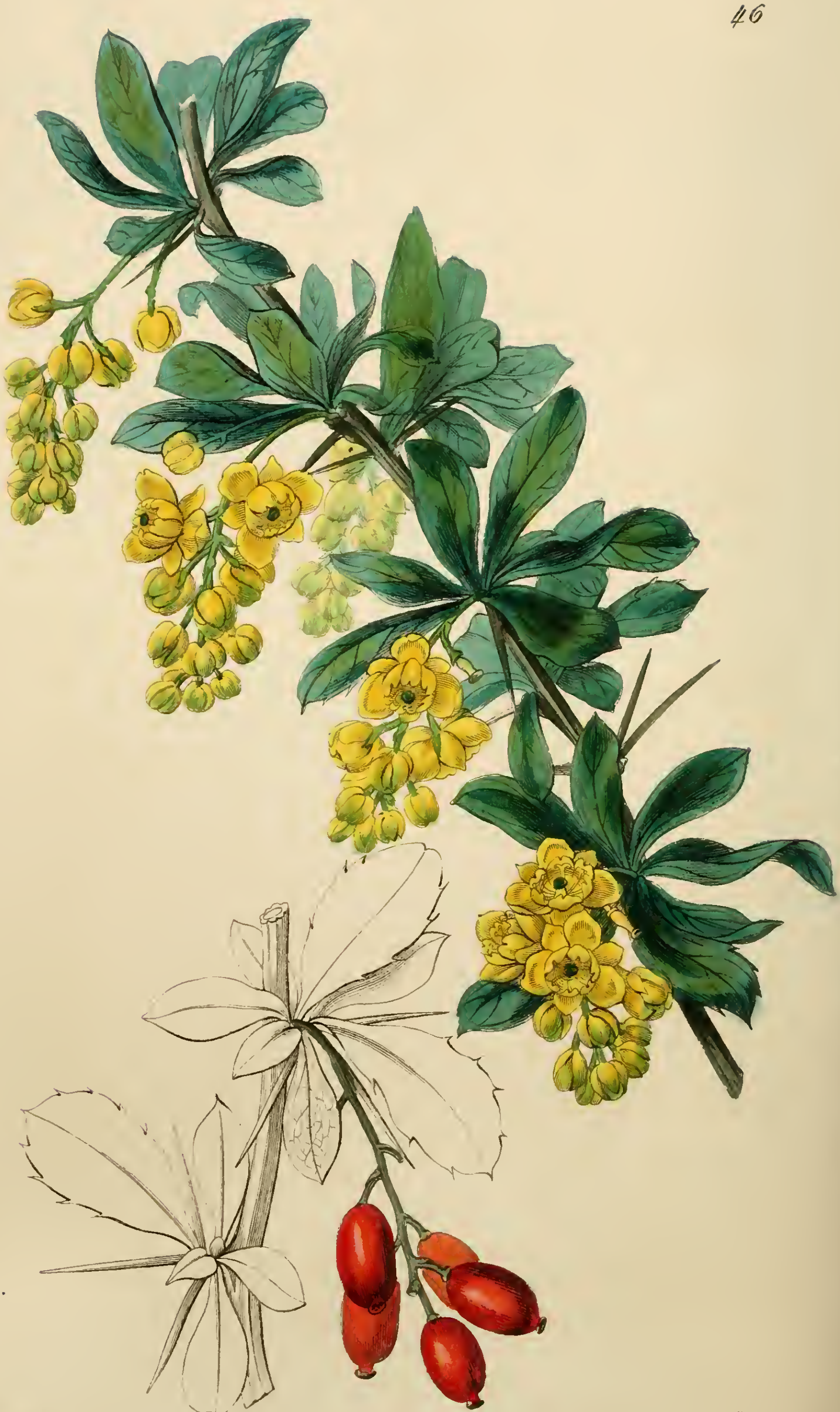
The figure is from the Garden of the Horticultural Society; I have also received the plant from Mr. Standish of Bagshot, and from Robert Mangles, Esq. of Sunning Hill.

It is a greenhouse twiner of very easy cultivation. It grows best in a light free soil composed of peat and leaf mould with a little loam and sand. Seeds are produced from it in abundance, and therefore it may easily be increased in this way or by cuttings which strike readily in silver sand.

August, 1841. R

The red spider is very fond of its leaves and therefore its attacks must be carefully guarded against. It is well adapted for covering a small trellis in a pot, but it grows and flowers in greater beauty if planted out in a light well drained border.

46



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BĒRBĔRĬS coriārĭă.

The Tanner's Berberry.

HEXANDRIA *MONOGYNIA*.

Nat. ord. BERBERACEÆ.
BERBERIS. Botanical Register, vol. 6. *fol.* 487.

B. *coriaria;* spinis validis tripartitis, foliis sempervirentibus lanceolatis obovatisque integerrimis v. aristato-serratis utrinque viridibus, racemis pendulis cylindraceis multifloris, fructibus oblongis rubris glabris.
B. coriaria. *Royle ined.*

There are now several Nepal Berberries in our gardens, all handsome shrubs. The first that came over was B. asiatica, the Hill raisin of the Nepalese, with coarsely veined leaves, short racemes, and fruit remarkable for the thick bloom that overspreads its purple skin. Then we had B. aristata, a more slender plant, with glossy fine-veined leaves, and long half-corymbose racemes of flowers. Afterwards appeared the more rare B. floribunda, with narrow graceful racemes of small flowers, which clothe the axis of the inflorescence from the very base. To these we have a fourth to add, called by Dr. Royle B. coriaria, but as yet unpublished; it has narrow lanceolate leaves, firmly netted, green on both sides, for the most part entire, but occasionally furnished with bristle-pointed teeth. From B. asiatica it differs in its finely veined leaves and larger flowers; from B. aristata in its more lanceolate leaves and shorter less corymbose racemes; and from B. floribunda in its short racemes, large flowers, and much smaller foliage. Its red fruit, without bloom, affords another mark of recognition.

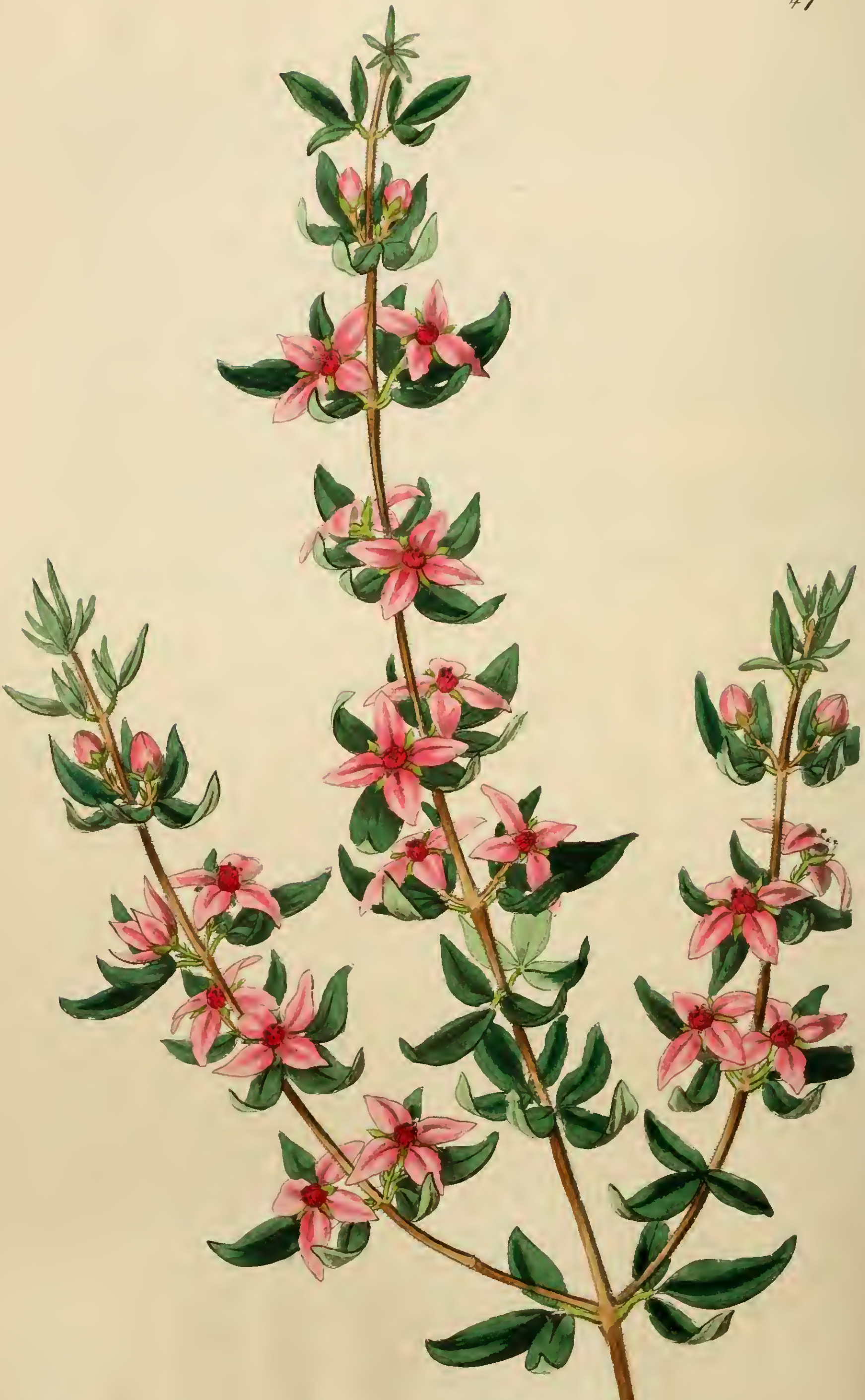
How far it is to be distinguished from B. Lycium, the *λυκιον ινδικον* of Dioscorides, according to Dr. Royle, I am less able to say, not possessing any authentic specimen of that species. It would appear, however, from the specific character in the *Illustrations of the Botany of the Himalaya*, that its pendulous racemes, short pedicels, and large flowers are sufficient points of difference.

In the gardens it is a robust shrub, with much the appearance of B. asiatica, and quite as hardy, flowering in June, and easily increased by seeds; which should be sown directly they are ripe, for if not sown till the following spring, they probably will remain twelve months before they vegetate; whereas if sown directly they are ripe they come up the next spring.

It may also be increased by layers, but they require two years before they are fit to separate from the mother plant.

It was raised by the Horticultural Society from seeds received from Dr. Royle in 1835.

47



Miss Drake del.   Pub by J. Ridgway 169 Piccadilly Sept 1 1834.   G Barclay sc.

BORŌNĬĂ triphȳllă; β. latifolia.

The Three-leaved Boronia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. RUTACEÆ.

BORONIA. Botanical Register, vol. 8. *fol.* 615.

B. *triphylla;* foliolis ternis margine revolutis subtus pilis stellatis incano-tomentosis. *Sieb. Dietr. sp. plant.* 2. 1268.
α. foliolis linearibus.
B. triphylla. *Reichenbach iconogr. exot.* 1. 52. *t.* 73.
β. foliolis ovalibus triplò latioribus.
B. ledifolia. *Paxton, Magaz. of Botany, t.* 123.

This is a very neat and pretty New Holland shrub; it may indeed be regarded as one of the best of the Boronias; partly on account of its good foliage, but more because of the deep rich ruby red of its numerous starry flowers.

It is current in the nurseries under the erroneous name of B. ledifolia, and has been so figured by Mr. Paxton in the work above quoted. How the mistake originated I cannot imagine, for it has no resemblance to the true B. ledifolia, an old greenhouse shrub with simple leaves, figured years ago in Ventenat's plants of Malmaison, under the name of Lasiopetalum ledifolium.

That it is the B. triphylla of Sieber's collections there is no doubt; but I am uncertain whether it is a variety or not. It differs from the wild plant now before me in having much broader leaves; but that circumstance may be owing to cultivation, and not to any real constitutional difference.

The accompanying drawing was made in the Nursery of Messrs. Loddiges.

This requires nearly the same kind of treatment as the smaller kinds of Diosma, and like most hardy wooded plants should have a light sandy soil which is rather poor. The principal thing to be observed in growing such plants is always to drain the pots well, to keep them in a place where there is plenty of light and air during the winter months, and never to suffer them to become too dry or too wet, for if once they become unhealthy they seldom recover or make handsome plants.

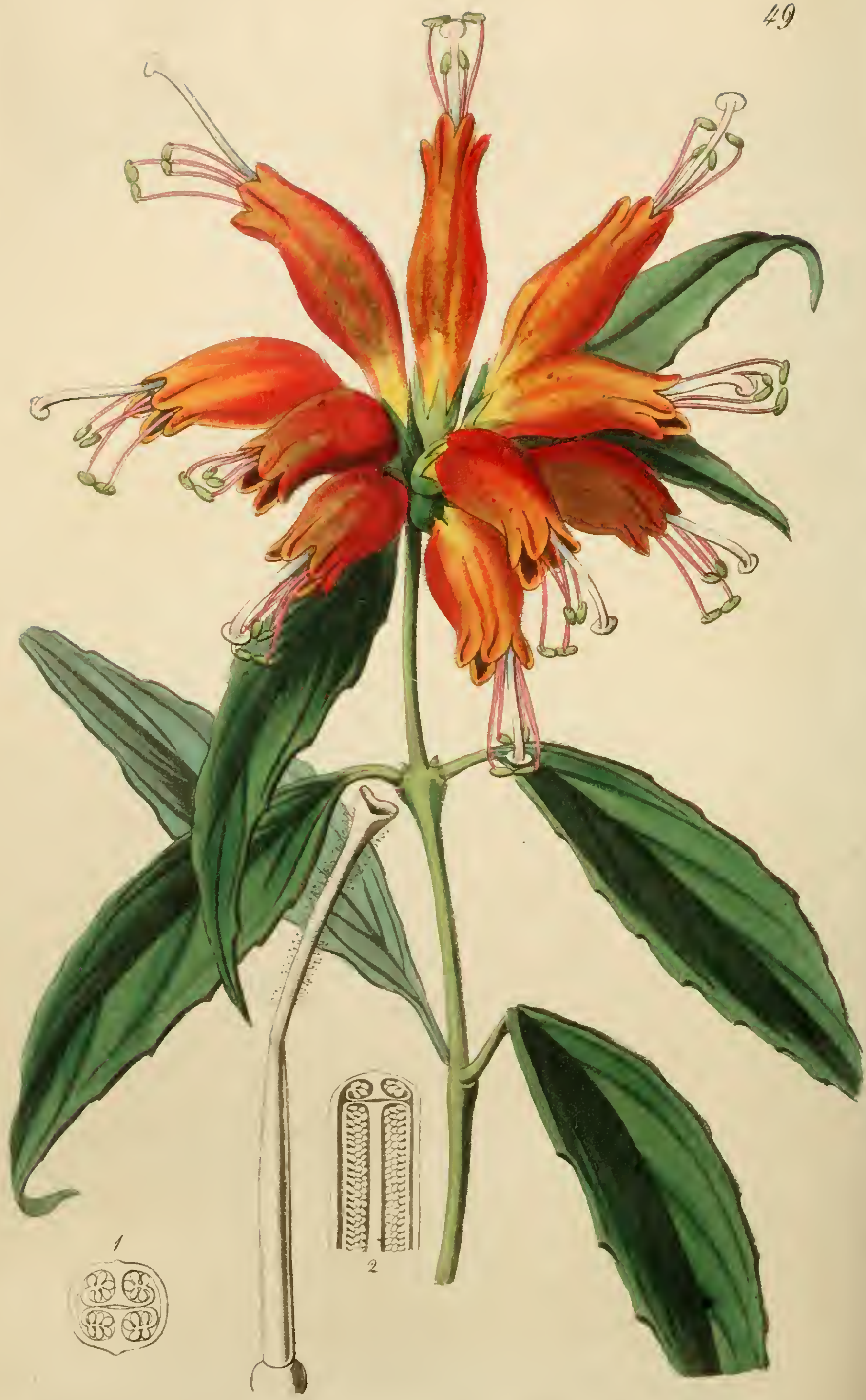
It should be preserved during summer either in pits or frames where the lights are removed during fine weather, but where they can be replaced in wet or cold weather.

It strikes freely from cuttings of the young wood, if treated in the same manner as Heaths and other hard wooded plants.

To the 17 species of this genus mentioned in Dietrich's recent Synopsis plantarum, there are so many to add, that the enumeration there given offers a very inadequate idea of the extent of the genus, even as known through books. To those already published I have myself the following to add.

1. B. *mollis* (A. Cunningham); foliis simplicibus ternatis pinnatisque: foliolis oblongis obtusis subtus ramisque hirsutis, pedunculis axillaribus aggregatis 2-plurifloris hirsutis, sepalis linearibus setaceo-acuminatis.——Nepean River, New Holland, 1825.——This is allied to Boronia paradoxa, omitted by Dietrich, but has very narrow sepals, and the bracts upon its pedicels are setaceous not obovate. A noble species.
2. B. *anethifolia* (A. Cunn.); ramulis angulatis resinoso-scabris glabris, foliis bipinnatis, petiolis articulatis alatis, foliolis linearibus acutis punctato-scabris, paniculis axillaribus parvis corymbosis foliis multo brevioribus, sepalis subrotundis.——Interior of New Holland, lat. 28½° S. 1827.——The flowers are small and closely collected on the short panicles, which e not half the length of even the uppermost leaves.
3. B. *falcifolia* (A. Cunn.); glaberrima, ramulis angulatis, foliolis ternatis teretibus falcatis mucronatis, floribus solitariis axillaribus foliis brevioribus, sepalis setaceis.—— Moreton Bay.——A singular plant with tapering ternate leaflets, irregularly curved in one direction, so as to acquire a truly sickle-shaped figure. The flowers are solitary in the axils of the uppermost leaves, where they form small leafy racemes.
4. B. *dichotoma;* foliis linearibus sessilibus obtusis planis basi dilatatis, paniculis axillaribus dichotomis viscosis scabris elongatis, sepalis ovatis acutis, petalis glabris.——A gay pink herbaceous plant, which grows quite on the water's edge, upwards of three feet high; its flower-stalks are fragrant and very viscid. Blooms October and November. Loam with a mixture of sand. The beautiful turn of the River Vasse. Mr. Molloy. ——Next to B. denticulata, but very distinct.
5. B. *ovata;* foliis ovatis sessilibus glabris, corymbis terminalibus laxis paucifloris glaberrimis, sepalis ovatis acutis petalis glabris pluriès brevioribus.——Swan River, on mountains.——A beautiful dwarf shrub, with the habit of some species of Hypericum. The flowers are in loose terminal corymbs, with capillary peduncles, more than half an inch long; they appear to be deep crimson.

at those seasons when it ought to be kept cool and dry. It grows either potted in turfy peat or suspended from the rafters of the house, and is propagated like all other plants of this kind by division.



Miss Drake del.   Pub by J Ridgway 169 Piccadilly Sep 1841   G Barclay sc.

ÆSCHYNĀNTHŬS grandiflōrŭs.

Large-flowered Blushwort.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. CYRTANDRACEÆ.
ÆSCHYNANTHUS. *Botanical Register,* 1841. *fol.* 28.

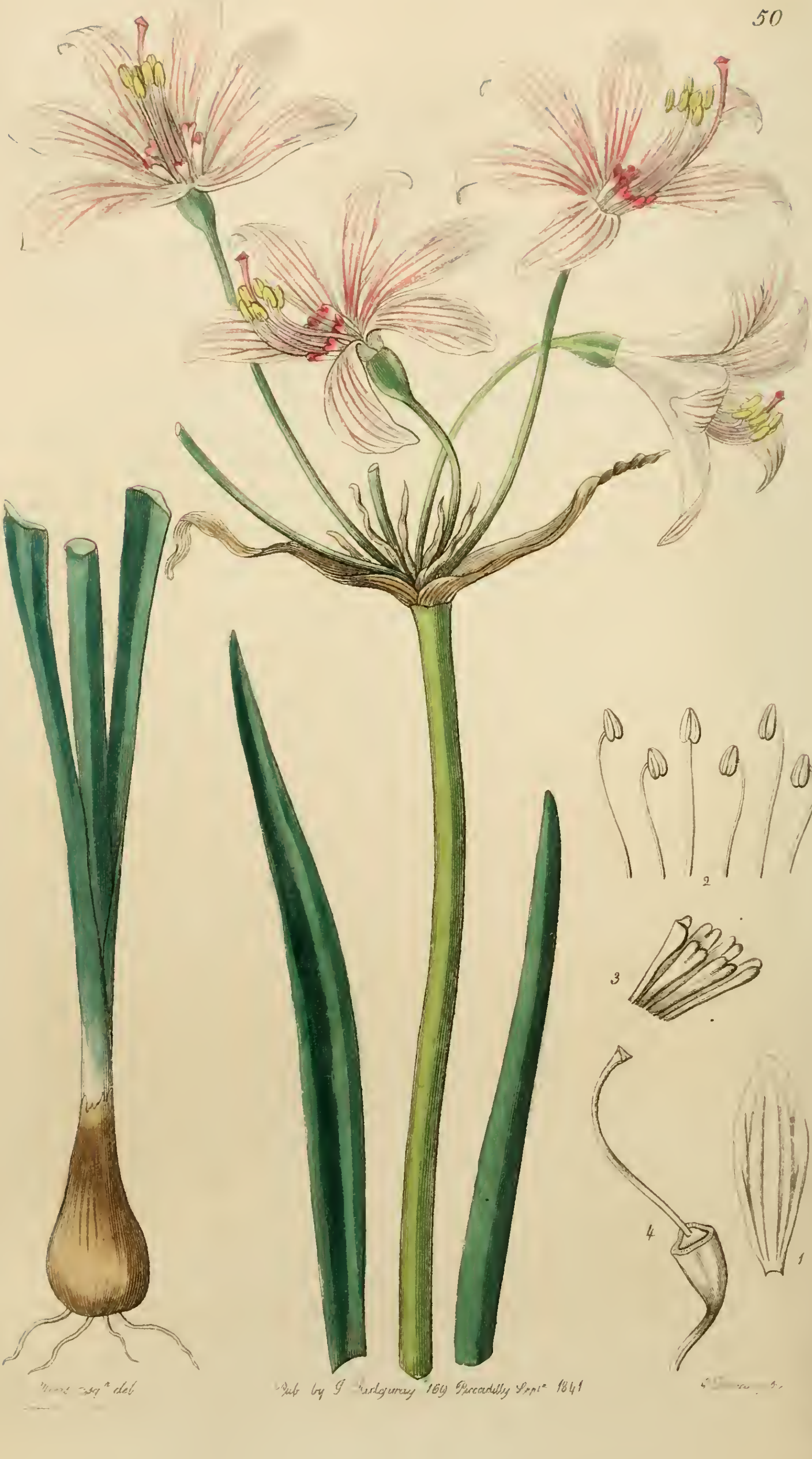
Æ. *grandiflorus;* caulibus simplicibus, foliis lanceolatis acuminatis coriaceis dentatis integrisque, umbellâ terminali multiflorâ, floribus pedunculatis, calycis campanulati glaberrimi laciniis lineari-oblongis obtusis, corollæ supra medium ventricosæ laciniis rotundatis subæqualibus conniventibus, staminibus longè exsertis, antheris olivaceis.
Æsch. parasiticus. *Wallich cat. no.* 796.
Incarvillea parasitica. *Roxburgh Corom. pl. t.* 291.
Æsch. grandiflorus. *Spreng. syst. veg.* 4. 238.
Trichosporum grandiflorum. *Don Prodr. fl. nep.* 125.

Of all the stove plants in cultivation this is one of the handsomest and the most easy to manage. To say that the accompanying figure is not only no exaggeration, but in truth inferior in brilliancy and beauty to its original—*c'est tout dire.* To cultivate it all that is required is a very damp stove, with a log of wood to which a cutting may be tied; it will immediately put forth its ivy-like roots, cling to the log, and speedily, that is to say in a few months, convert itself into a pendulous bush, every one of whose branches is terminated by a cluster of deep scarlet flowers. No where have I seen it more beautiful than in the Nursery of Mr. Henderson, of Pine Apple Place, Edgware Road; but in numerous places it is excessively handsome.

That it is the Æschynanthus parasiticus of Wallich is certain; and consequently it is in all probability the Incarvillea parasitica of Roxburgh; there is therefore no other ground for admitting the name of Æ. grandiflorus, now current in the gardens, than that all the genus is parasitical, (that is epiphytal) and therefore no one species in particular should be so denominated. Certainly the first name should have been retained; but it would now produce more confusion to go back to it than to acquiesce in the modern innovation.

Fig. 1. represents a transverse section of the ovary, shewing the curious double placentæ; 2. exhibits the same parts cut longitudinally; 3. is the entire pistil, with its glandular style and funnel-shaped stigma.

It not only requires a strong damp atmosphere during the growing and flowering season, but afterwards it should be rested; not however in the way generally followed with such plants, but by letting it gradually become much dryer, still keeping it in the same temperature; for it is a mistaken idea, and against nature, to suppose, that plants cannot be rested, without placing them in a much cooler atmosphere than that in which they were grown: care should also be taken not to rest plants directly after flowering, as is a common practice, but to cause them to make their growth for the ensuing season, and then to rest them in the way above stated; especially if natives of a tropical climate. The species strikes freely from cuttings, and flowers at various times of the year.



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PLĂCĔĂ ornātă.

Gay-flowered Placea.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDACEÆ.

PLACEA. *Miers Trav. in Chili*, 2. 529. Absque char.

Char. diff. *Perigonium* petaloideum, subdeclinatum, 6-partitum, *laciniis* patenti-reflexis, æqualibus, 2 inferioribus latè divergentibus. *Corona,* e disco epigyno orta, 6-phylla, declinata; *foliolis* lineari-oblongis, extus carinatis, apice emarginatis. [*Nobis* è contrario sex-partita videtur, laciniis basi in tubum junctis.] *Stamina* 6 (quorum 3 longiora) declinata, adscendentia. *Ovarium* inferum. *Stylus* declinatus. *Stigma* truncatum.

Char. naturalis. *Perigonium* petaloideum, epigynum, subdeclinatum, 6-partitum, tubo nullo, *laciniis* æqualibus, lineari-oblongis spathulatis apice mucronatis, æquè expanso-reflexis, 2 inferioribus latè divaricatis. *Corona* hexaphylla, valde declinata, foliolis suberectis, e disco epigyno ortis, lineari-spathulatis, extus carinatis, apice emarginatis. *Stamina* 6; *filamenta* valdè declinata, summò adscendentia, 3 perianthio medio longitudine, 3 alterna paulò longiora. *Antheræ* obovatæ, imò emarginatæ, dorso gibbo versatiles. *Ovarium* inferum, 3-gonum, 3-loculare. *Stylus* simplex, declinatus, apice incurvus. *Stigma* gibboso-clavatum, obtusum, cavum. *Capsula* ignota.——*Planta* Chilensis radice tunicatâ bulbosâ; *foliis* binis radicalibus amplexicaulibus linearibus; *scapo* solitario foliis longiori: *spathâ* 2-valvi lineari sub 6-florâ, pedicellis basi bracteatis. *Miers in litt.*

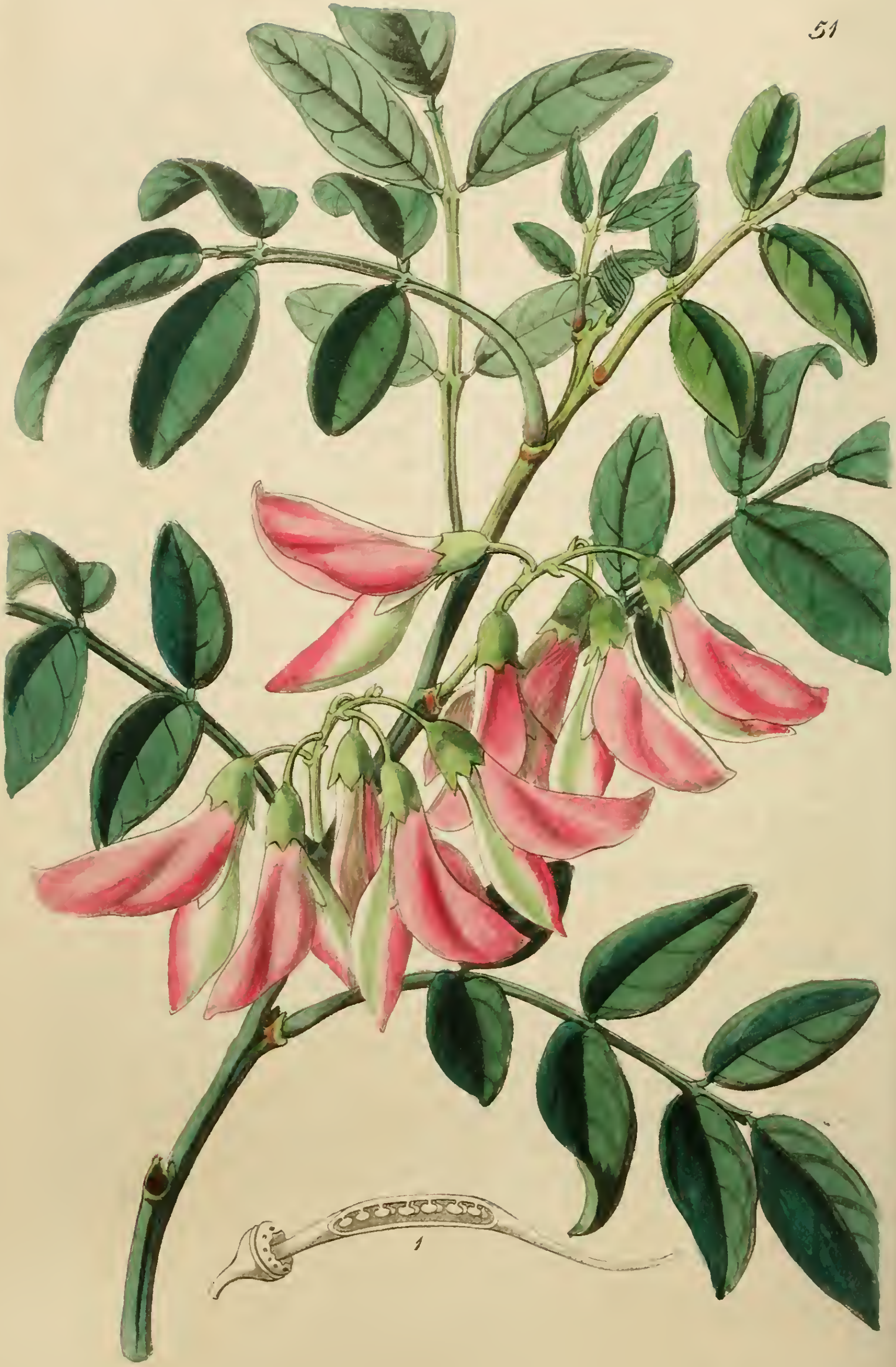
P. *ornata;* Perianthium subcrassum, niveum, laciniis spathulato-oblongis, apice mucronatis, vittis 4 miniatis internè ornatis marginalibus semipinnatis. Corona nivea, apice punicea. Folia linearia nitida subtus obtusè carinata.——Crescit in Montibus Cordillera de los Andes propè Aconcagua. *Miers in litt.*

We publish this plant for two reasons; firstly, in the hope that the figures may lead to the introduction from Chili of so very pretty a bulb; secondly, because it is of all plants one of the least known to botanists.

Up to the present time all that has been published about it is its name, which was given in a page at the end of Mr. Miers's Travels in Chili. By the kindness of this gentleman I am now able to present the readers of the Register with a figure taken by himself from the fresh plant, and a generic character; to which I am allowed to add the following note.

"This very elegant plant was found by me in the year 1824, in one of the lateral branches of the lofty chain of the Andes that jut into the plain of Aconcagua. The scape, rising to the height of nine inches, bears a head of four to seven flowers, upon pedicels from two to three inches long, or rarely by abortion it is one-flowered. The marcescent linear spathe bears within it as many membranaceous bracts as there are flowers. The separation of the two lower segments appears at first sight as if two of them had been torn away. The flowers externally are snow-white, the colour of the brilliant vermilion lines being in no degree distinguishable on the back of the segments, where they are also pure white and striated longitudinally. The filaments are of a pale crimson, and the anthers, somewhat emarginate at base, are versatile. The stamens and corona originate outside of a raised epigynous disc, together with the perianthium. The style is somewhat longer than the stamens, and more declinate, but the apex is curved upwards to meet the anthers, as in the genus Amaryllis. I gathered a number of the bulbs of this beautiful plant, which I regret were all lost by shipwreck, together with the greater part of my collections."

Mr. Miers has also given me a dried specimen, which enables me to confirm the general accuracy of the figure and technical character, as published. I am however inclined to think that the coronet is not composed of six distinct lobes, but that they are united into a cup about one-fourth of their whole length; at least such appears to be the structure of the only flower I have been able to examine. In the opinion of the Dean of Manchester, the genus is most nearly allied to Eucrosia.



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CLIĀNTHŬS cārnĕŭs.

Flesh-coloured Glory Pea.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ, § PAPILIONACEÆ.
CLIANTHUS. Botanical Register, vol. 21. *fol.* 1775.

C. *carneus ;* foliolis 2-3-jugis ovatis lucidis glaberrimis, racemis erectis paucifloris, vexillo recto obtusiusculo.
Clianthus carneus. *Lindl. in Bot. Reg.* 1841. *misc. no.* 7.
Streblorhiza speciosa. *Endlicher prodr. fl. Norfolk.* 92.

Under the name of Streblorhiza, a word formed from στρεβλος bent, and ριζα a root, in allusion to the radicle of the embryo being twice bent upon the back of the cotyledons, this plant was originally described by Dr. Endlicher, after a drawing made by Mr. Ferdinand Bauer on Philip's Island, a small rock off the coast of Norfolk Island. When it was first raised in Europe it continued to bear that name, until it flowered, when it was found to be identical with the now well known genus Clianthus, as Dr. Endlicher himself suspected. It has therefore become necessary to alter the name first given it.

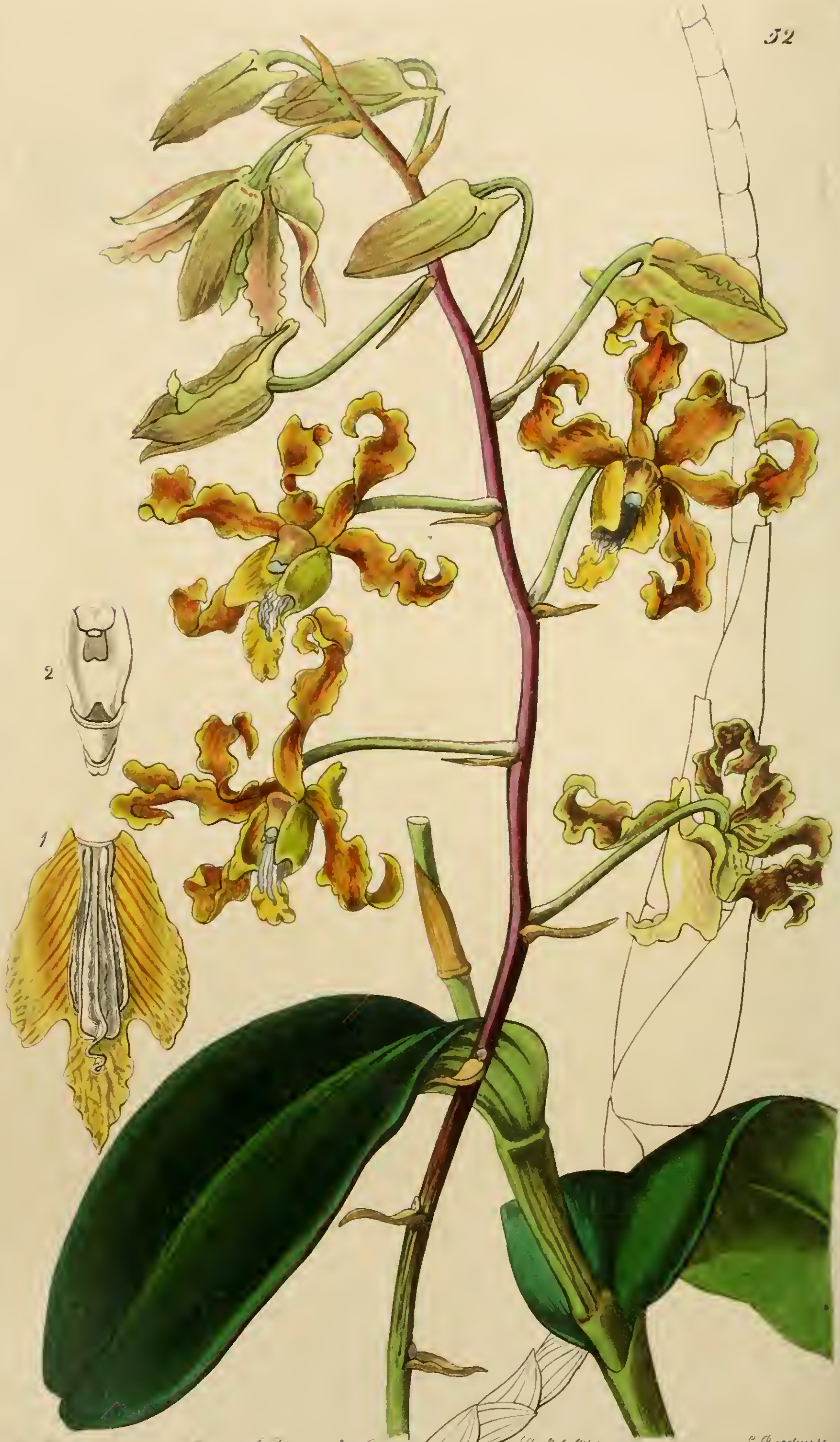
By some of those interested in the sale of such plants the beauty of the species was at first greatly exaggerated, and consequently when it did flower so much disappointment was felt that its real merits were overlooked. I trust the accompanying figure will set that matter at rest; and show that if inferior to Clianthus puniceus, it is still a species well worth cultivation as a twiner. It flowers well in a cold conservatory, has good evergreen leaves, and would in all probability prove well adapted to training over moveable trellises.

It is easily cultivated, only requiring a rather strong rich soil and plenty of room to grow; it will then flower freely;

September, 1841.

but is not suited for growing in pots, as the plant requires to become large and have plenty of room before it will flower freely.

It strikes freely from cuttings, treated in the ordinary way, and flowers during the earlier parts of the year.



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DENDRŌBĬŪM dīscŏlŏr.

Dull-coloured Dendrobium.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ, § Malaxeæ.
DENDROBIUM. Botanical Register, vol. 15. *fol.* 1291.

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§ Onychium : *caulibus erectis basi incrassatis.*

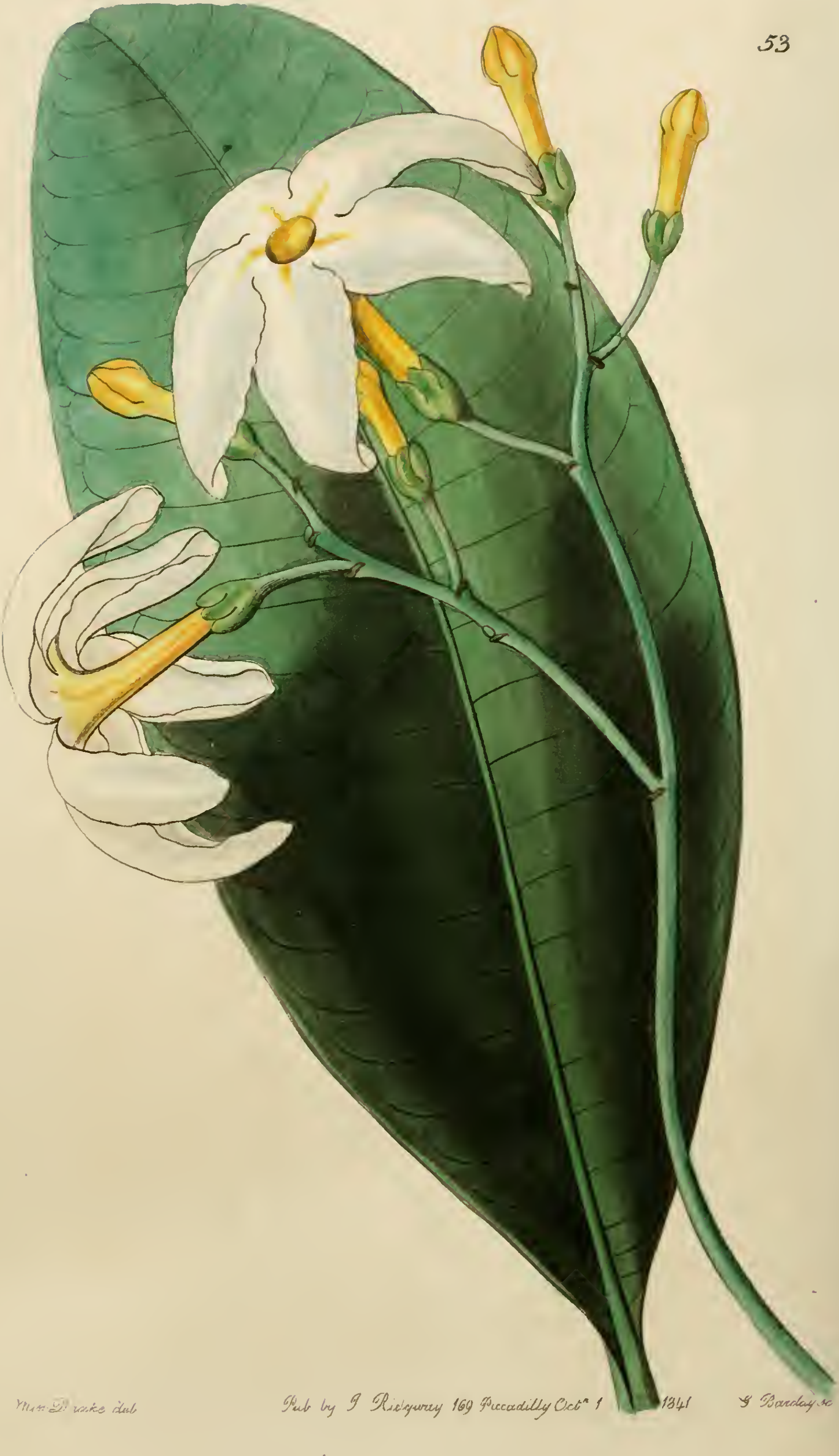
D. *discolor;* caulibus erectis fusiformibus, foliis oblongis obtusè emarginatis distichis, racemo terminali multifloro, sepalis petalisque lineari-oblongis patulis crispis, labelli crenulati lobis lateralibus acutis intermedio lanceolato acuto : lamellis 5 undulatis. *Lindley in Bot. Reg.* 1841. *misc.* 50. *Lodd. cat. ed. ult. no.* 323.

Caulis *erectus,* 4-*pedalis et ultra, in racemum longum strictum productus, basi squamatus, paulo altiùs fusiformis, dein annulatus, apice foliosus.* Folia *oblonga, emarginata, obtusa, patentia, coriacea, disticha.* Racemus *strictus, multiflorus, purpureus, flexuosus; bracteis brevibus acutis.* Flores 10-16 *in omni racemo, inter majores, horizontales.* Sepala *et* Petala *conformia, lineari-lanceolata, patentia, undulato-crispa, fusco-aurantiaca, margine pallidiora.* Labellum *pallidius, in cornu brevi emarginato productum, ovato-oblongum, concavum, trilobum; laciniis lateralibus erectis acutis, intermediâ lanceolatâ multò angustiore, acuminatâ, recurvâ, omnibus subcrenulatis seu crispatis;* lamellæ 5, *erectæ, undulatæ, parallelæ, contiguæ, pallidè violaceæ medium occupant, quarum laterales breviores, intermedia ad laciniæ intermediæ dimidiam flexuosè producitur.* Columna *brevis emarginata, antherâ infra columnæ humeros immersâ.*

A native of Java, whence Messrs. Loddiges obtained plants in 1838; it does not however appear to be included among those known to Dr. Blume, to whose genus Onychium it belongs. It has a most singular appearance, with stout erect stems four feet high, swollen in the middle, and terminal racemes of about 16 dingy yellowish brown flowers, as much curled and wavy as those of a Gloriosa. The lip has the same dull dirty colour, except along the middle, where it is decorated with five deep wavy plates of a light violet.

No plants are easier managed than Dendrobiums, and this one is as tractable as any of them. A high moist temperature is required during their period of growth, and when this is past, and the shoots formed, the house may be kept more cool and dry. In resting the plants, however, it is a bad plan to go to extremes, and hence we frequently find persons injuring them by putting in practice certain notions which they have formed upon this subject. This species should be grown in a pot, and the soil should consist of open turfy peat. The stems and leaves should be frequently well syringed.

53



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TABERNÆMONTĀNĂ dichŏtŏmă.

The Forked Tabernæmontana.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Apocynaceæ.

TABERNÆMONTANA. *Botanical Register, vol.* 4. *fol.* 338.

T. *dichotoma;* foliis oblongis obtusis coriaceis lucidis subtus parallelè et transversè multinervosis, cymâ elongatâ dichotomâ, laciniis calycis obtusis, corollæ oblongo-falcatis tubum æquantibus. *Wallich in Botanical Register, fol.* 1273.

T. dichotoma. *Roxb. fl. ind. II.* 21.

Frutex *atrovirens, lactescens; vel forte arbor humilis.* Folia *coriacea, opposita, oblonga, sexpollicaria et ultra, apice rotundata, basi acuta, marginibus recurvis.* Venæ *primariæ omninò transversæ simplicesque unciæ partem tertiam distant, apice juxta marginem bifurcant, nec venulis colligantur conspicuis; quæ adsunt in folii substantia latent.* Flores *axillares et terminales, cymosi, nutantes, odoratissimi, bracteas suas citissimè perdunt.* Calyx *coriaceus, in alabastro globosus; sepalis rotundatis imbricatis tubo corollæ pluriès brevioribus.* Corolla *hypocrateriformis, carnosa, contorta, tubo recto luteo, limbo candido reflexo, laciniis suis tubo paulo longioribus, oblongis, obtusis.*

A most fragrant and beautiful stove plant, resembling a Plumieria in appearance. It is a native of Ceylon, whence we possess native specimens; according to Dr. Wallich it also occurs in Malabar. The latter describes it as a plant which grows from 12 to 16 feet high, with a peculiarly dark and glossy foliage, and delightfully fragrant flowers. It quite merits the character it has received, as appeared by the specimen at Sion House, from which the accompanying figure was made by permission of His Grace the Duke of Northumberland.

The following is the account given of it by Roxburgh in his Flora Indica.

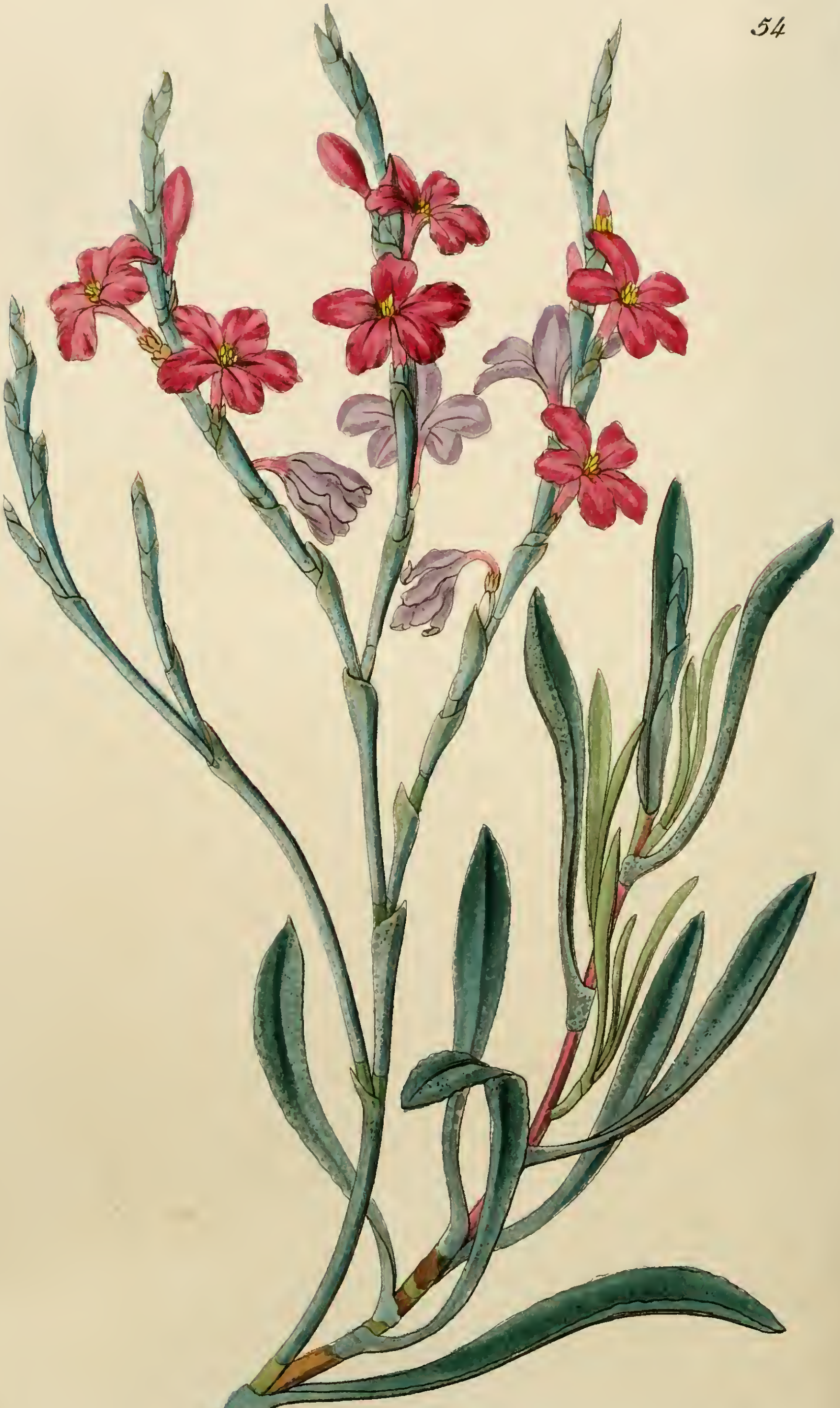
" Trunk short, branches numerous, spreading much in every direction, dichotomous, the old ones with smooth olive coloured bark, the young ones green, round, and very smooth. Leaves opposite, petioled, oblong and linear-oblong, entire, rather obtuse, of a firm texture, and polished on both sides; veins parallel, diverging from the rib; length from four to eight inches, and from one to two broad. Petioles short, and united in a cup like a stipulary ring, which completely embraces the branchlets. All these parts very resinous. Racemes simple or compound, single or in pairs, in the extreme divisions of the branchlets, often as long as the leaves, polished, bright green. Flowers rather remote, long pedicelled, large white, scarcely fragrant. Bracts scarcely any. Calyx five parted, divisions short, semilunar, resinous. Corolla: tube long, gibbous near the base, much contracted above the stamina. Border of five, contorted, falcate segments. Filaments short, inserted into the tube of the corol near the middle. Anthers sagittate. Germs two, closely united; single, one-celled; ovula numerous, attached to a two-lobed receptacle, on the inner side of the cell. Style two-thirds shorter than the tube of the corol, two-lobed. Stigma large, with a tapering bifid apex. Follicles: it is rare to find more than one of the two come to maturity, they are recurved with the back considerably concave, and very gibbous on the opposite side, where an elevated rib runs on each side of the suture, obtusely pointed, pretty smooth; when ripe of a bright orange colour, four or five inches long, and nearly two in diameter where thickest. Seeds numerous, of an irregular cuneate-oblong shape, with a deep longitudinal groove on one side; each enveloped in its own proper scarlet pulpy aril, and inserted along the side of the two margins of the suture by the small end of the aril, which is again attached by a broad umbilical cord to the centre of the longitudinal groove just mentioned. Perisperm in pretty large quantity, rather soft, and of a pale blueish white colour. Embryo nearly as long as the seed, with the two cordate cotyledons lodged near the thick end, and the long, almost straight, cylindric radicle directed to the small end where the aril was attached to the margin of the follicle.

"An incomplete drawing and description of this tree was sent to the Hon. the Court of Directors under the name *Cerbera dichotoma*, and numbered 1541. At that time I had not seen the fruit; but since my return to India, I have met with it in a perfectly ripe state, and find the plant must now be referred to the genus Tabernæmontana, where, I think, it forms a new species."

The Sages of Ceylon having demonstrated, as they say, that Paradise was in that island, and having therefore found it necessary to point out the forbidden fruit of the garden of Eden, assure us that it was borne by a species of this genus, the Divi Ladner of their country, and probably the plant before us. The proof they find of this discovery consists in the beauty of the fruit, said to be tempting, in the fragrance of the flower, and in its still bearing the marks of the teeth of Eve. Till that offence was committed, which brought misery on man, we are assured that the fruit was delicious: but from that time forward it became poisonous, as it now remains.

Upon turning to the genus Tabernæmontana in Dietrich's new Synopsis Plantarum, a notable example is to be found of the care with which such compilers execute their task. In the preface the author assures his readers that he has collected together all the species published up to his time, in doing which he has employed all diligence, assisted by his own library and those of Gottingen and Weimar. On the faith of this assurance his readers paid their thirty-six shillings for the two first volumes of the book. In this genus, however, it turns out that the whole of the species (14 in number) published by Dr. Wallich in 1829, are left out by Dr. Dietrich writing in 1839. Now those species were not described in the corner of some unknown Journal, but in the pages of the Botanical Register, a work which we will engage to say contains as many new species of plants as any periodical that has been published, and which no working Botanist can possibly avoid consulting. So much for accuracy! The species plantarum of Römer and Schultes, and of Sprengel, were thought to be as bad as ingenuity could make them; but Dr. Dietrich has proved that worse books *may* be written.

In cultivation it requires the moist stove. If cuttings from it are put in silver sand under a bell-glass, with a little bottom heat, they strike readily. The soil used in potting should be rich, but at the same time of such a nature as not to set hard about the roots. For this purpose equal parts of fresh loam, turfy peat and leaf mould should be well mixed together and used when the plants are shifted. When they are young they should be frequently topped to render them bushy.



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STĂTĬCĒ monopĕtălă.

Monopetalous Sea Lavender.

PENTANDRIA *PENTAGYNIA*.

Nat. ord. PLUMBAGINACEÆ.
STATICE. Botanical Register, 17. *fol.* 1450.

S. *monopetala;* albo-lepidota, caule fruticoso folioso, foliis lineari-spathulatis basi vaginantibus, spicis paniculatis squamatis, floribus solitariis distantibus, corollâ incurvâ hypocrateriformi, calyce herbaceo vix-exserto vel aucto.

S. monopetala. *Linn. sp. pl.* 1. 296. *Desf. fl. atl.* 1. 277. *Forsk. Fl. ægypt. arab.* 59. *no.* 97.

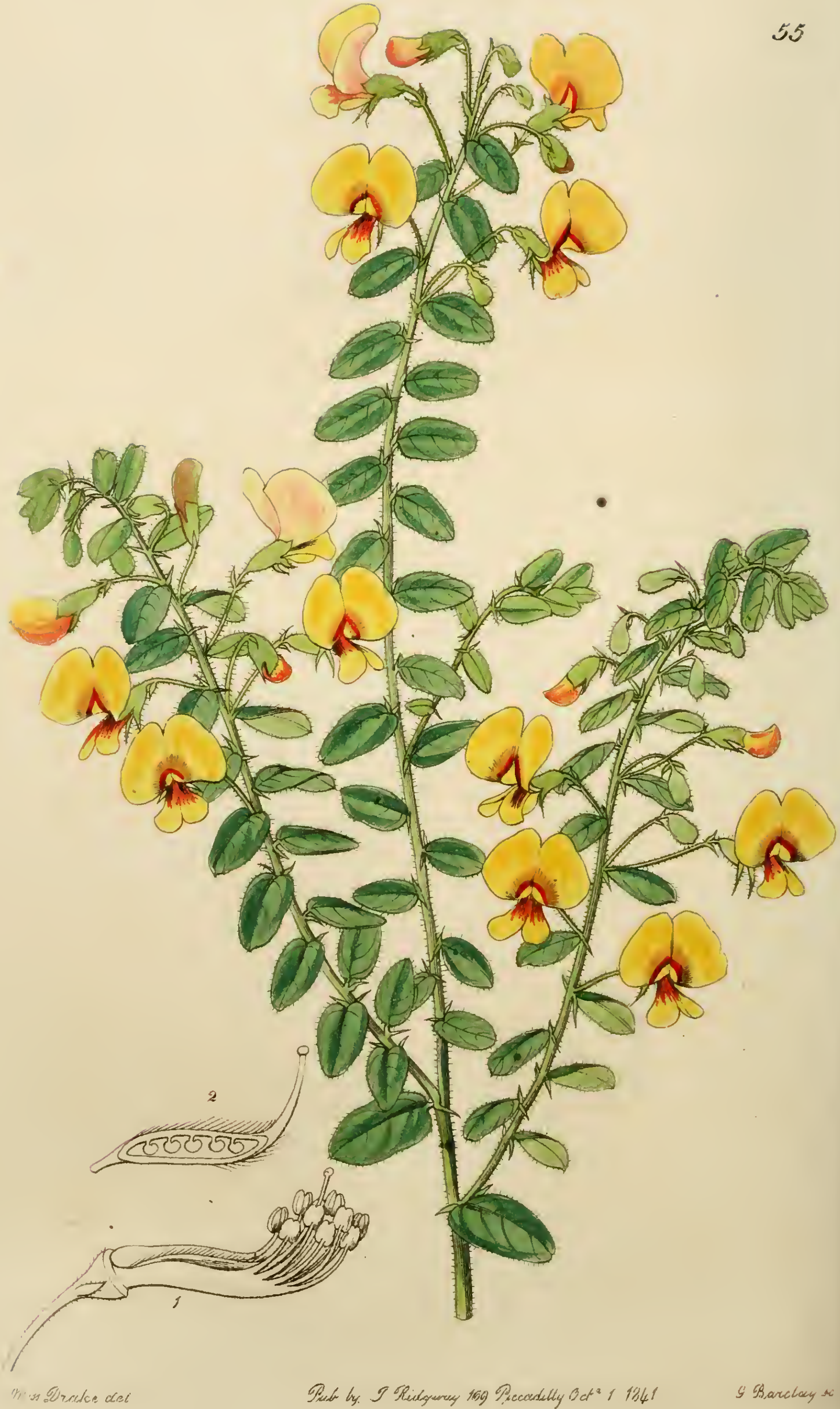
There is something so peculiar in the habit of this plant, that, notwithstanding the assertion of Linnæus that "nullus sanus" would think of separating it from the genus Statice, we feel inclined to do so. In its corolla with a very long curved tube, and the calyx, which scarcely enlarges after flowering, we have clear marks of distinction from the true Sea Lavenders. Nevertheless it is perhaps as well to leave it in Statice till the numerous other shrubby species shall have been carefully examined.

This species is found wild in the Southern parts of Europe, and in the North of Africa. Desfontaines gathered it in Algiers, Brotero mentions it as Portuguese, Tenore describes it as inhabiting the swamps of Calabria, and Forskahl found it common at Alexandria in the deserts about the Catacombs, where he says it is called *Sœtj* or *Zœjta.*

The whole of the green parts are covered with white disks, distant from each other about twice their own diameter, and apparently composed of calcareous matter. Does not this render it probable that some of the salts of lime, the muriate for instance, would prove grateful food for it. The experiment is worth trying, for if the plant has so much more earthy matter to throw off superficially than other plants, it must, one would think, have a greater capacity for absorbing them.

A pretty shrub, which is nearly hardy, requiring only the protection of a cold frame or pit during winter. It grows freely in any rather rich light soil, and flowers from July to September; cuttings of the young wood strike freely, treated in the ordinary way.

55



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* BOSSIÆĂ dīstĭchă.

Double-rowed Bossiæa.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ or FABACEÆ, § PAPILIONACEÆ.
BOSSIÆA. Botanical Register, vol. 4. *fol.* 306.

B. *disticha;* ramis junioribus teretibus, foliis distichis ovatis obtusis muticis, stipulis petiolo longioribus, floribus solitariis axillaribus, pedicellis folio longioribus *Supra misc. no.* 67. *p.* 38.

Frutex *debilis, erectus, pubescens, ramis filiformibus.* Folia *disticha, ovata, obtusa, plana, ferè avenia, lævia, pilis raris appressis sericea, nullo modo coriacea, subsessilia;* stipulæ *setaceæ, scariosæ, petiolo longiores.* Pedunculi *solitarii, axillares, capillares, patentìm pilosi, apice bibracteolati, foliis ferè duplò longiores.* Calyx *sericeus, subæqualiter* 5-*dentatus, dentibus triangularibus margine tomentosis.* Vexillum *flavum, bilobum, basi luteum sanguineo-fusco limbatum.* Ovarium *stipitatum, basi glabrum, cæterùm parcè pilosum;* ovula 4-5.

A pretty little shrub, raised in the garden of the Horticultural Society from Swan River seed, presented by Capt. James Mangles, R.N. and flowering in March.

It has an erect habit, but its branches are slender and weak, and covered with leaves in a two-ranked manner; the latter are ovate, obtuse, not at all hard, and scarcely half the length of the capillary flower-stalks. The flowers are rather large for the size of the plant, and showy; the standard is pale yellow, with a darker spot at the base of the same colour, bordered first with crimson and then with dusky red. The wings are stained with the same colour at the base; otherwise they are pale yellow.

Fig. 1. represents the stamens of this plant; fig. 2. the pistil, with the ovary laid open to shew the number of ovules it contains.

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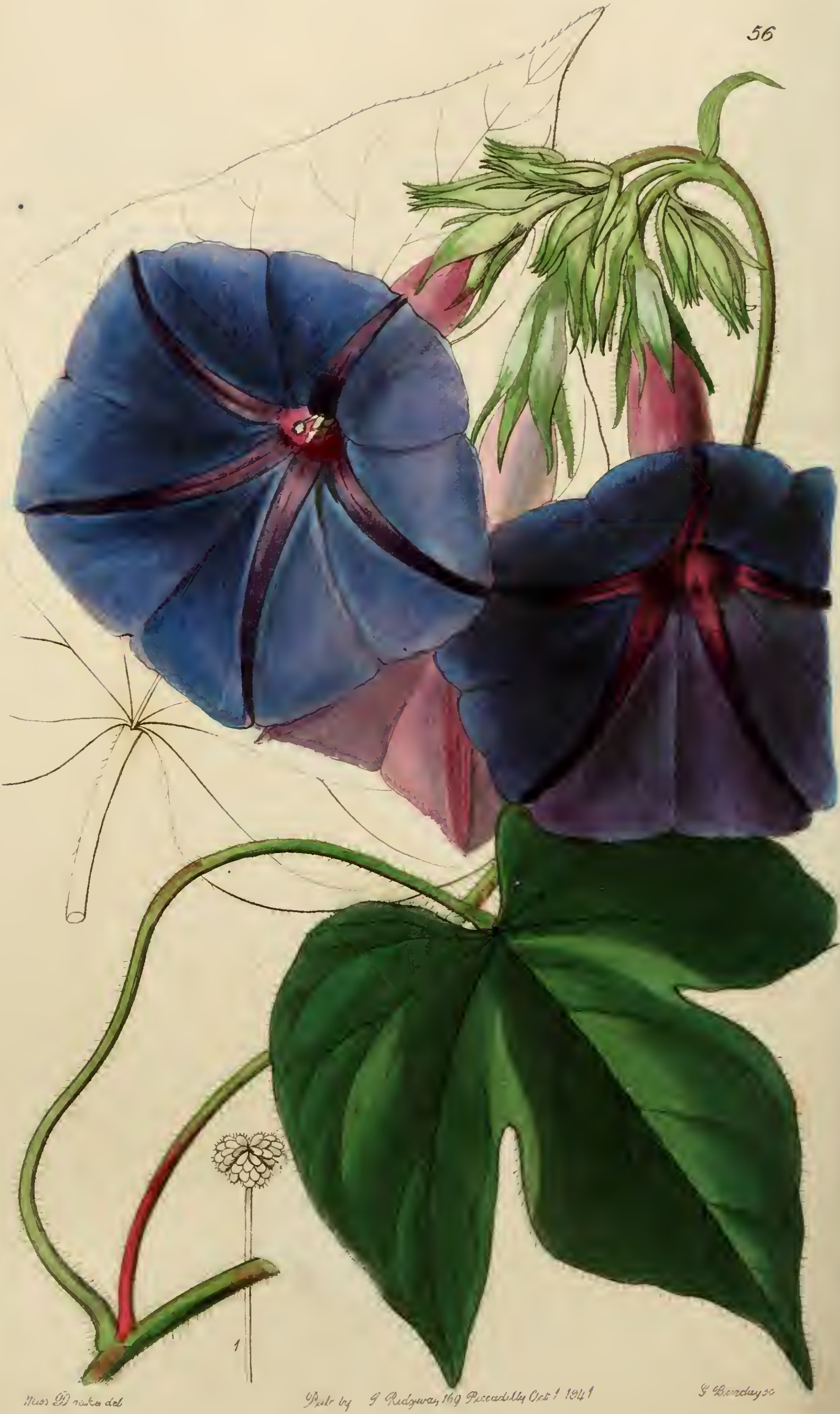
* See folio 306.

The nearest affinity of the species is evidently with Mr. Bentham's *B. eriocarpa* from the same country, which has a similar habit, but is altogether of a stouter growth and firmer texture. It differs in the leaves being smooth not scabrous, and veinless not reticulated; in the flower-stalks being much longer than the leaves, not shorter; in the colour of the flowers; and in the ovary being only just hairy instead of being enveloped in long shagginess. In general appearance it is something like *B. tenuicaulis* lately figured in the Botanical Magazine, which I fear is too near *B. cinerea.*

It requires the same treatment as Platylobiums and the shrubby kinds of Crotalaria, and like most of the genus may be increased freely from seeds or cuttings.

56



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PHARBĪTĬS Leārĭi.

Mr. Lear's Gaybine.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ.

PHARBITIS. *Botanical Register, vol.* 23. *fol.* 1988.

P. *Learii;* radice tuberosâ; foliis cordatis acuminatis integris trilobisque, pilosis utrinque viridibus, cymis multifloris capitatis pedunculo foliis longiore, sepalis bracteisque linearibus acuminatis adpressè pilosis.

Ipomœa Learii. *Paxton, Magazine of Botany, vol.* 6. *p.* 267.

Every greenhouse where new plants are cultivated has been covered with the beautiful flowers of this species during the present season, and in some places it has even produced its blossoms out of doors. It first made its appearance at Mr. Knight's Nursery in the King's Road, where it received its specific name, having been supposed to be the produce of seeds sent from Ceylon by Mr. Lear. It is, however, not to be found among any of the Indian species either described or occurring in the herbaria to which I have access; nor is there a trace of it among the rich collection of Ceylon plants in my own possession.

It has also been raised in the garden of the Horticultural Society from seeds sent from Buenos Ayres by J. H. Mandeville, Esq. to the Hon. W. F. Strangways; and its whole habit is at variance with that of a species from a tropical island; for it dislikes heat and flourishes in a cool atmosphere. In fact it is very near Ipomœa, now Pharbitis, mutabilis, a beautiful Vera Cruz species, figured in the first volume of the Botanical Register, t. 39, from which it differs principally in its calyxes being very little hairy, and in its leaves wanting the thick pale down which covers the underside of the foliage of that species.

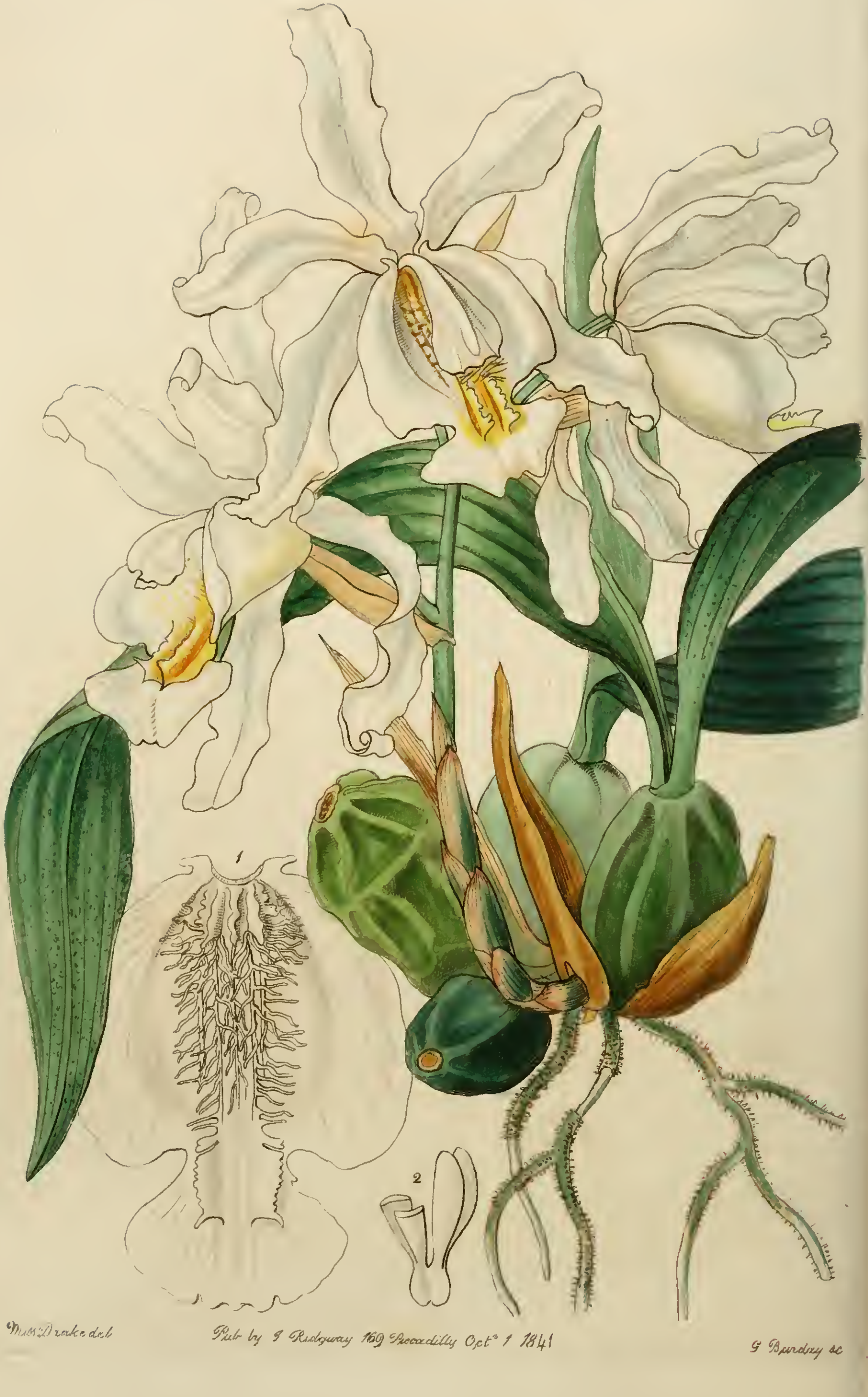
October, 1841. x

We therefore suspect some mistake in the report that this is a native of Ceylon.

It is a genuine species of Pharbitis, and by its entire correspondence in habit with the other species tends to confirm the propriety of maintaining that genus.

It is a charming species when trained over a trellis in a pot, and more particularly when planted in the ground and led over the rafters of the greenhouse or cool stove. It evidently does not require a stove temperature, but like several other Buenos Ayres plants, does best in a house which is kept rather higher than a common greenhouse. It forms large tuberous roots which should be kept nearly dry during the winter, when it is not growing. Before it begins to push in spring the stems should be thinned, and cut back something in the way in which vines upon walls are treated ; and at the same time if any insects are upon it they must be carefully washed off, otherwise the white bug and scale will increase so fast as to render it unsightly when in flower. It is easily propagated by cuttings, and grows luxuriantly in any free soil.

57



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CŒLŎGY̆NĒ cristātă.

Crested Cœlogyne.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.
CŒLOGYNE. Botanical Register, vol. 11. *fol.* 868.

C. *cristata*; pseudo-bulbis oblongis demùm angulatis rhizomate crasso squamoso insidentibus, foliis lineari-lanceolatis, racemo radicali erecto foliis breviore basi squamis corneis vaginato, bracteis oblongis divaricatis persistentibus, petalis oblongo-lanceolatis undulatis, labelli trilobi cristâ triplici interruptâ: infimâ brevi 5-lamellatâ intermediâ multifidâ pectinatâ supremâ bilamellatâ denticulatâ, lobo medio rotundato parvo apice crenato.

? Cymbidium strictum. *Don prodr.*

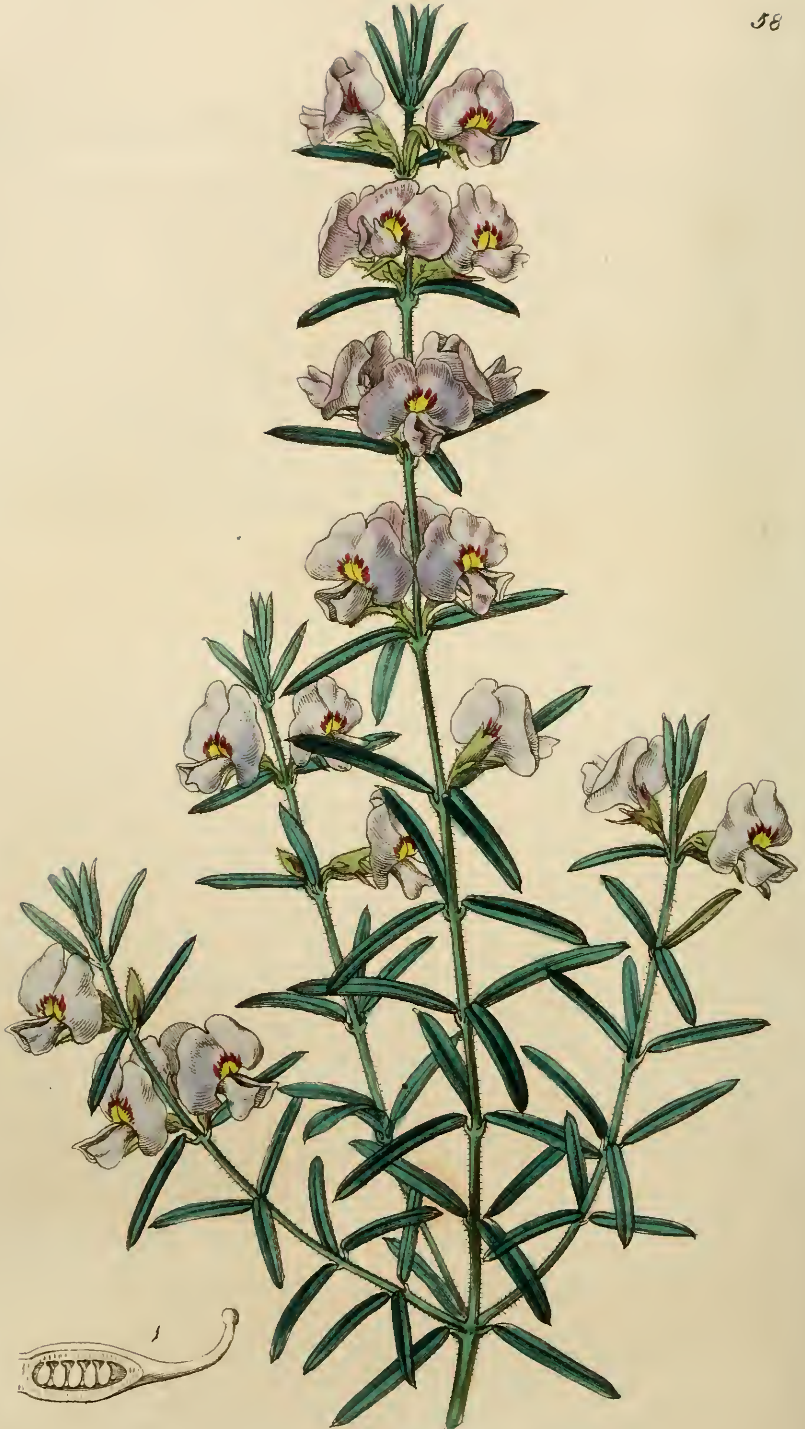
Cœlogyne cristata. *Lindl. Coll. Bot. p.* 33. *Wall Cat. no.* 1958. *Gen. & Sp. orch. no.* 2.

Labellum *candidum, basi sub-auriculatum, oblongum, trilobum; lobis lateralibus rotundatis ascendentibus intermedio minore rotundato apice crenato.* Crista *lutea, e venis quinque orta, quæ basi totidem lamellas breves dentatas truncatas gerunt, tùm ferè ad sinus labelli usque in pilos breves flexuosos simplices bifidosve pectinatim dispositos solvuntur; demum venâ intermediâ lateralibusque inappendiculatis lamellæ duæ dentatæ truncatæ tantum restant.*

Among the showy Orchidaceæ of India some of the Cœlogynes are the handsomest, and of them the present C. cristata stands pre-eminent. It is indeed a most beautiful species, fragrant, free-flowering, and having large blossoms of the purest white, except the lip, which in its centre is decorated with bright yellow fringes and plates. It has recently flowered with George Barker, Esq. of Birmingham, and being exhibited at a meeting of the Horticultural Society in Regent Street, obtained a Knightian medal.

The specimen, however, now represented must not be taken as a fair sample of its appearance; on the contrary, the wild specimens from Nepal, which are now before me, bear five flowers instead of three in a raceme, and are more than four inches in diameter.

Dr. Wallich found it on rocks and trees in Nepal. Fig. 1. shews the lip spread open, and two pollen-masses. It should be grown in the warmest and dampest end of the stove, and potted in turfy peat, having the pot well drained. The supply of water must be regulated by the state of the plant and the season of the year, giving less in winter and when in a resting state, than in summer, when growing vigorously. I would again hint at the impropriety of carrying the drying and resting practice too far, more particularly with such plants as the present one, as I believe many persons have injured their collections by doing so.



Miss Drake del.

Pub by J Ridgway 169 Piccadilly Oct 1 1841

G Barclay sc

MIRBĔLĬĂ speciōsă.

Showy Mirbelia.

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ or FABACEÆ, § PAPILIONACEÆ.

MIRBELIA. Botanical Register, vol. 12. *fol.* 1041.

M. *speciosa ;* ramis pubescentibus, foliis sparsis s. ternatim verticillatis linearibus margine revolutis glabris apice uncinulatis, floribus axillaribus brevitèr pedicellatis, calycibus sericeis, ovario pluri-ovulato.

M. speciosa. *Sieb. pl. exsicc. nov. holl.* 367. *DeCand. prodr.* 2. 114.

Frutex *ramosus, ramulis sericeis tetragonis.* Folia *linearia, vix lucida, glabra, apiculata, pilis quibusdam adpressis in costa et margine ; ternatim verticillata.* Flores *axillares, solitarii, pedicellati.* Calyx *sericeus, dentibus lateralibus acuminatis.* Corolla *violacea vexilli medio lutea.* Ovarium *glabrum, ovulis* 10.

A handsome New Holland shrub, in its native country forming a scrubby bush, with thinly scattered flowers ; but in cultivation becoming much more twiggy, with interrupted racemes of flowers. The latter are of bright but purple violet ; with a yellow spot in the centre of the vexillum.

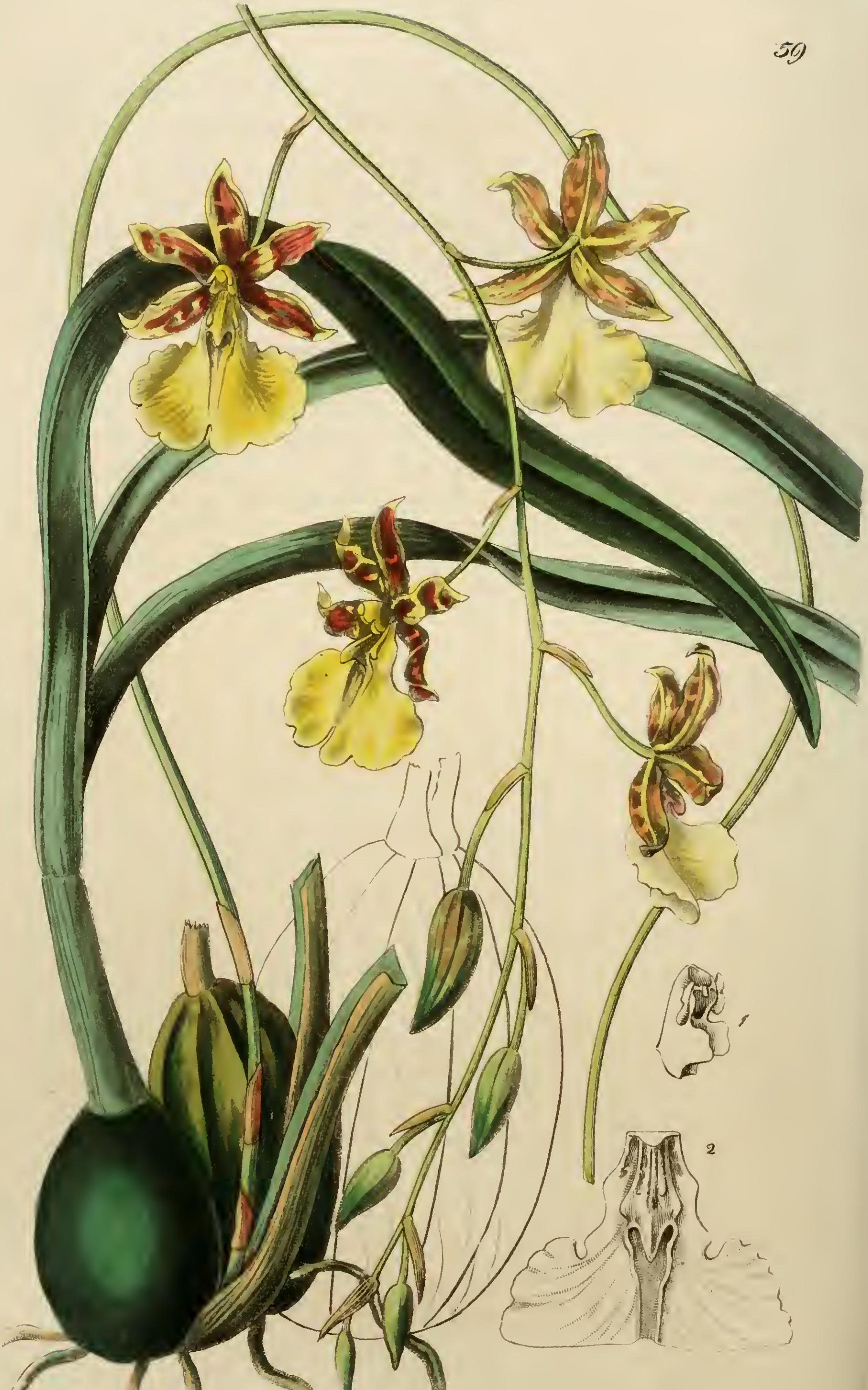
The accompanying drawing was made in the Nursery of Messrs. Loddiges in March last. Fig. 1. represents a section of the ovary, shewing the number of the ovules.

There appears to be little difference between this and M. floribunda, except in the very short lucid retuse leaves, deeper flowers, and more hairy calyxes and branches of the latter ; which is a Swan River shrub, of greater beauty than this.

This shrub, grows more freely than many of the genus to which it belongs, and requires, like most of the less robust plants belonging to Australia, to be grown in a light sandy soil which is rather poor and well drained ; for if the soil is rich or retentive of moisture, the plants are very subject to die suddenly, when in full vigour.

In summer it should be placed in a cold frame or pits where the lights can be removed entirely in dull weather and at nights during summer, but kept on during boisterous and wet weather. It is a mistake to suppose that greenhouse plants should be placed out of doors and subjected to all the vicissitudes of the weather during summer. As regards delicate sorts like the present, the sudden changes which they are subjected to when placed out of doors are very destructive to them; they should be kept in as small pots as possible, and placed in an airy cool part of the green-house where there is plenty of light during winter, but where there is no danger of sudden changes in the temperature, by fire-heat or neglect of watering. More injury is done by too much fire heat and too little water to such plants during winter, than by all other causes together, frost alone excepted.

59



M. A. Drake del. Pub by J Ridgway 169 Piccadilly Nov 1 1841 G Barclay sc

CYRTOCHĪLŬM filĭpĕs.

Thread-stalked Curvelip.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ, § Vandeæ.
CYRTOCHILUM. *Botanical Register, vol.* 19. *fol.* 1627.

C. *filipes;* scapo longissimo simplici filiformi apice ipso paucifloro, sepalis petalisque lanceolatis conformibus acutis planis, labello cuneato bifido apice dilatato basi dente porrecto subsimplici subtuberculato aucto, columnæ alis minimis cuneatis truncatis. *Bot Reg.* 1841, *misc.* 72.

Pseudobulbi *ovati,* 2-3-*phylli, basi etiam foliosi.* Folia *graminea, basi invicem vaginantia, vaginis in collum aggregatis, pedalia,* racemo *filiformi, gracili, erecto, apice florido breviora.* Scapus *distanter vaginatus, internodiis sesquipollicaribus.* Flores *C. maculati facie, sed lutei.* Sepala *et* petala *æqualia, lanceolata, planiuscula, tigrina.* Labellum *luteum, basi cuneatum integerrimum, apice dilatatum, subrotundum, bilobum, et subcrenatum.* Crista *elevata, anticè in cornu brevi producta, utrinque dente parvo aucta, adjectis tuberculis uno alterove inconspicuis.* Columna *cum labello angulum acutum formans, brevis, utrinque antice in aciem rotundatam producta, alis præterea minimis truncatis.*

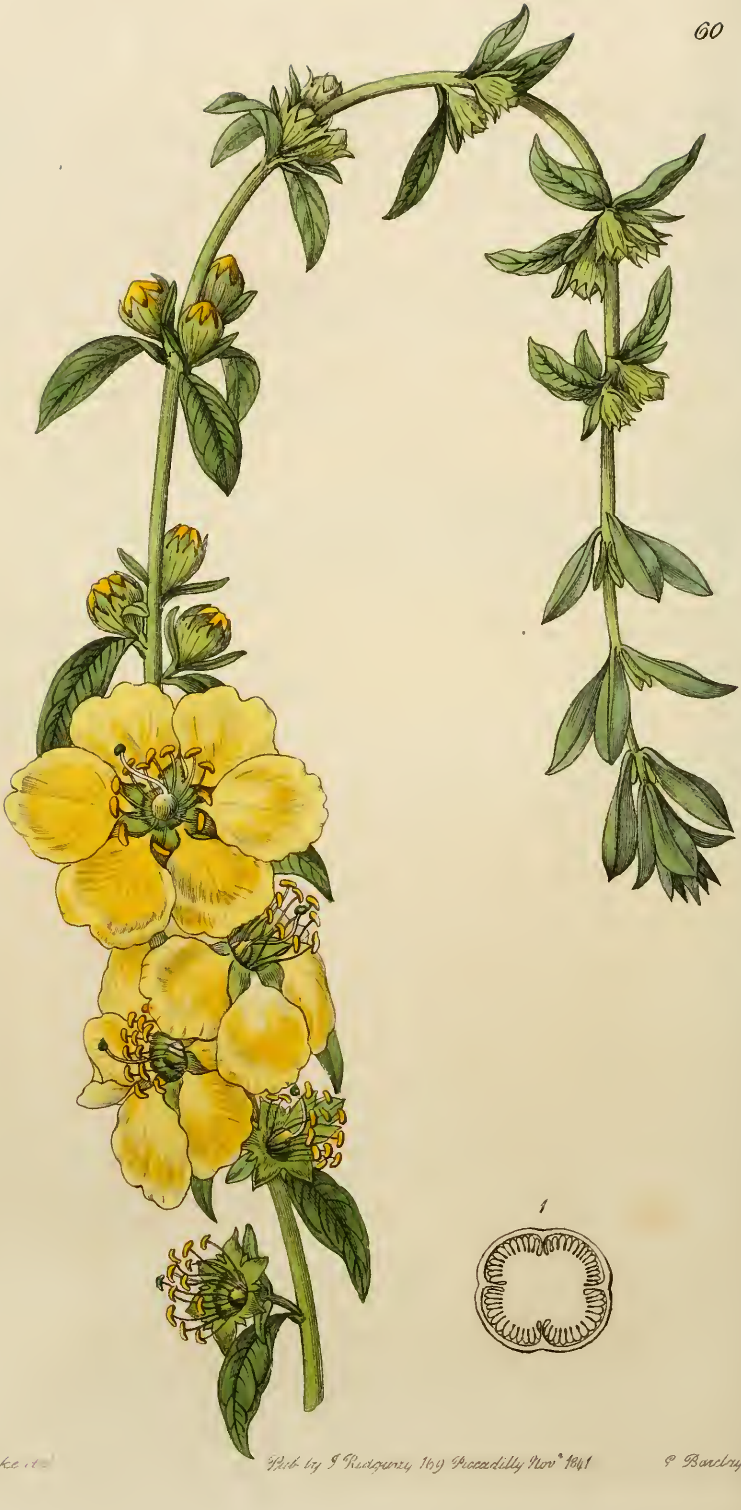
A native of Guatemala, whence it was originally sent by Mr. Skinner to Mr. Bateman and others, and whence it has also been received by the Horticultural Society from Mr. Hartweg. In consequence of its colour being yellow it has the aspect of an Oncidium, from which genus it is distinguished by its labellum being narrowed to the base, where it forms an acute, not an obtuse, angle with the column. It has a very slender stem, above two feet long, perfectly simple, on the extreme point of which are four or five flowers about the size of those of C. maculatum.

Fig. 1. represents the column seen from the side, and 2. the base of the column with the peculiar crest.

It is not necessary to keep this species in such a hot place as some of the West Indian Orchidaceæ, but a temperature considerably higher than a greenhouse is nevertheless indispensable. Like others it delights in a brown turfy peat, and may either be grown in a well-drained pot or suspended from the rafters of the stove. Very little water should be given when not growing.

The following are the species of Cyrtochilum at present known, of which those enclosed in brackets are not in our gardens yet.

(1. C. undulatum. *New Grenada.)*
(2. C. flexuosum. New Grenada.)
(3. C. pardinum. Peru.)
4. C. mystacinum. Peru.
5. C. maculatum. Mexico. Of this there are several varieties, of which C. m. *Russellianum* with very deep spots, figured in the Botanical Magazine, t. 3880, and C. m. *parviflorum* noticed at no. 87 of the miscellaneous matter of the present volume, are the most remarkable.
6 C. graminifolium. Mexico.
7. C. filipes. Mexico.
8. C. flavescens. Brazil.
9. C. stellatum. Brazil.
(10. C. ixioides. New Grenada.)
(11. C. volubile. Peru.)



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Drake del. Pub by J Ridgway 169 Piccadilly Novr 1841 G Barclay sc.

HĒIMĬĂ salicifŏlĭă; *var.* grandiflōră.

Large-flowered Heimia.

DODECANDRIA *MONOGYNIA.*

Nat. ord. LYTHRACEÆ.

HEIMIA. Link & Otto. Calyx basi bibracteolatus, hemisphærico-campanulatus, lobis 6 erectis, sinubus 6 alternis patentibus corniformibus- *Petala* 6, lobis erectis calycinis alterna. *Stamina* 12 subæqualia. *Ovarium* sessile globosum 4-loculare. *Capsula* calyce obtecta. *Semina* minuta aptera. ——Frutices *Americani glabri.* Pedunculi *uniflori* calyce *breviores.* Flores *flavi.* DeCand. Prodr. 3. 89.

H. *salicifolia;* foliis ternis oppositis alternisque lineari-lanceolatis brevissime petiolatis acutis basi angustatis, petalis obovatis.
Nesæa salicifolia. *Humb. Bonpl. & Kunth. nov. gen.* 6. 192.
Heimia salicifolia. *Link & Otto abbild.* 63. *t.* 28.
var. grandiflora ; *floribus dŭplò majoribus, ramis cernuis ad apicem usque floridis.*

It is now about twenty years ago that a very pretty greenhouse plant was introduced to this country from the Royal Botanic Garden at Berlin, under the name of Chrysostemma salicifolium. It had light green shining leaves, and gay yellow flowers resembling those of a Lythrum except in colour. It had been raised at Berlin from Brasilian seeds. At a subsequent period it was ascertained to be the same as had been described by M. Kunth in Humboldt's work on South American plants, under the denomination of Nesæa salicifolia, and its name was changed. Further enquiries led Messrs. Link and Otto to the opinion that, properly speaking, the plant was not a Nesæa, and they proposed to call it Heimia, in compliment to Dr. Heim, a physician of Berlin ; a view subsequently adopted by DeCandolle, but objected to by Endlicher, for reasons which it is needless now to discuss.

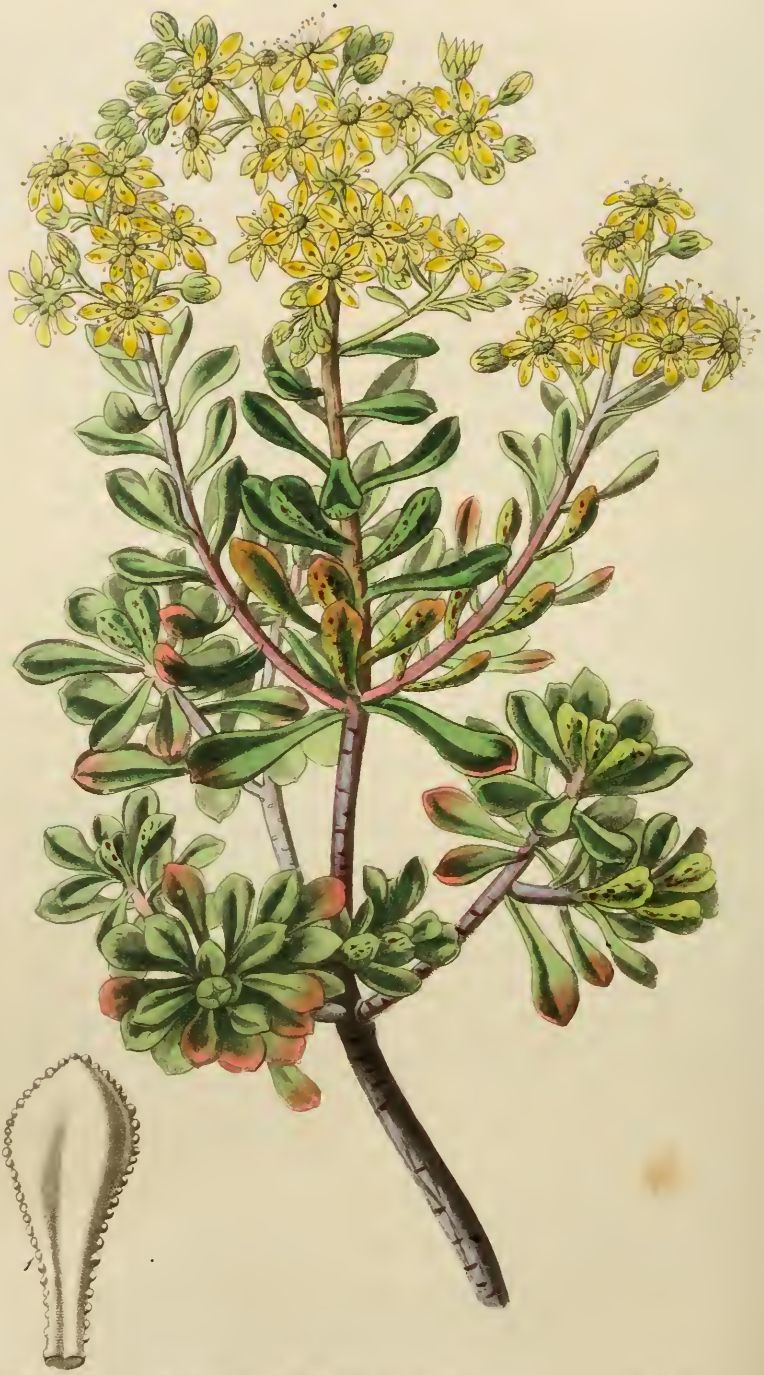
This Heimia salicifolia rarely makes it appearance at the present day, notwithstanding that the beauty of its flowers, *if* *the plant were well cultivated*, would make it a welcome addition to our greenhouses; but if ill managed it is not worth the growing. I am glad therefore to have the opportunity of publishing what I suppose to be a variety of it, with much larger flowers than the original species, and a better habit; for which the public is indebted to His Grace the Duke of Northumberland. It was received at Sion in 1839 from Captain Herbert, who obtained it on the Pampas of Buenos Ayres, and it flowered in June last.

For the present I am obliged to regard it as a mere variety of the Heimia salicifolia, from want of sufficient materials for comparison; but it is by no means improbable that it may be a distinct species. It is however certainly the plant distributed under this name from the Berlin Herbarium out of the collections made in Brazil by Sellow.

The differences that appear to exist between it and the above-mentioned plant consist not merely in the size of the flowers, but in the branches of the species now figured having a drooping habit, and being loaded with flowers almost up to their summit; while in the other they appeared principally from the middle part of the erect branches.

The specimen now represented has been treated as a greenhouse plant. That however formerly introduced is a half-hardy shrub, which will bear our ordinary winters with the mere protection of a hand-glass. It flowers in such situations from June to September, and is easily increased by cuttings of the half-ripe wood. In this, however, as in many more instances, the cultivator should consider, not what a plant will endure, but what it will flourish with; and in that case he will keep the Heimia in the society of Camellias, and Chinese Azaleas, and the more hardy kinds of New Holland plants.

61



[illegible]

* ÆŌNĬŪM cruēntūm.

Bleeding Stoneleck.

DECANDRIA *DECAGYNIA.*

Nat. ord. Crassulaceæ.

ÆONIUM. *Calyx* campanulatus, cyathiformis, aut turbinatus, apice 6-12-dentatus, aut medium usque 6-12-fidus. *Petala* totidem quot calycis laciniæ, perigyna, stamina superantia ad apicem disci hypogyni inserta, basi in annulum cum filamentis coalita, æstivatione imbricata, apice contorta. *Stamina* petalorum numero dupla, breviora petalis opposita. *Filamenta* filiformia, aut magis minusve dilatata. *Antheræ* ovatæ, aut rotundato-ovatæ, obtusæ, acutiusculæ, aut apiculatæ, sacculis confluentibus, lateraliter dehiscentibus, post emissionem pollinis revolutis. *Squamæ* perigynæ nullæ, vel quadratæ, claviformes aut obcordatæ, apice integræ aut obsolete crenatæ, erectæ, ovariis applicatæ. *Ovaria* petalis numero æqualia, intus recta aut subincurva, acuta, basi receptaculo immersa. *Styli* 3-quetri, extus leviter incurvi. *Stigmata* acuta, demum papillato-capitata. *Cocca* follicularia indehiscentia, aut demum basi et dorso per disruptionem dehiscentia. *Placentæ* filiformes, ad marginem interiorem cocci, aut crassæ per medium valvarum curvatæ. *Semina* elongato-ovata, aut oblique subpyriformia. *Embryo* ovatus obesus. *Cotyledones* ovatæ, sessiles. *Radicula* brevissima obtusa.—— Suffrutices *ramosi, aut* herbæ *basi lignescentes propagines emittentes.* Folia *rosulata, crassa, subtus convexa, vel gibba, margine pilosa cartilagineo-ciliata, aut papillata.* Paniculæ *cymosæ, aut thyrsoideæ.* Flores *lutei, vel fulvi, rarissimè rosei.* Pedicelli *in præfloratione nutantes.* Inflorescentia *centrifuga.* Webb Hist. Nat. Canar. p 184.

Æ *cruentum;* caule fruticoso erecto, ramis rectis puniceo-cruentatis glanduloso-puberulis, paniculis cymosis, foliis cuneato-spathulatis glaberrimis crassis in petiolum attenuatis margine papillosis supra viridibus subcanaliculatis subtus convexiusculis lineolis sanguineis notatis, floribus parvis 6-8 meris, antheris muticis, coccis brevibus anticè subrectis dorso planis. *Webb Phytogr. Canar. p.* 186. *t.* 28.

No one who has studied this order critically will deny that the distinctions of the old genera Sedum and Sempervivum are unsatisfactory, in consequence of the uncertainty in the number of the parts of fructification, by which these genera have been always distinguished. Mr. Webb therefore, in his work on the Canaries, has remodelled these genera, assigning them new characters, and separating from them three groups, to which the names *Æonium*, *Aichryson*, and *Greenovia* are severally applied.

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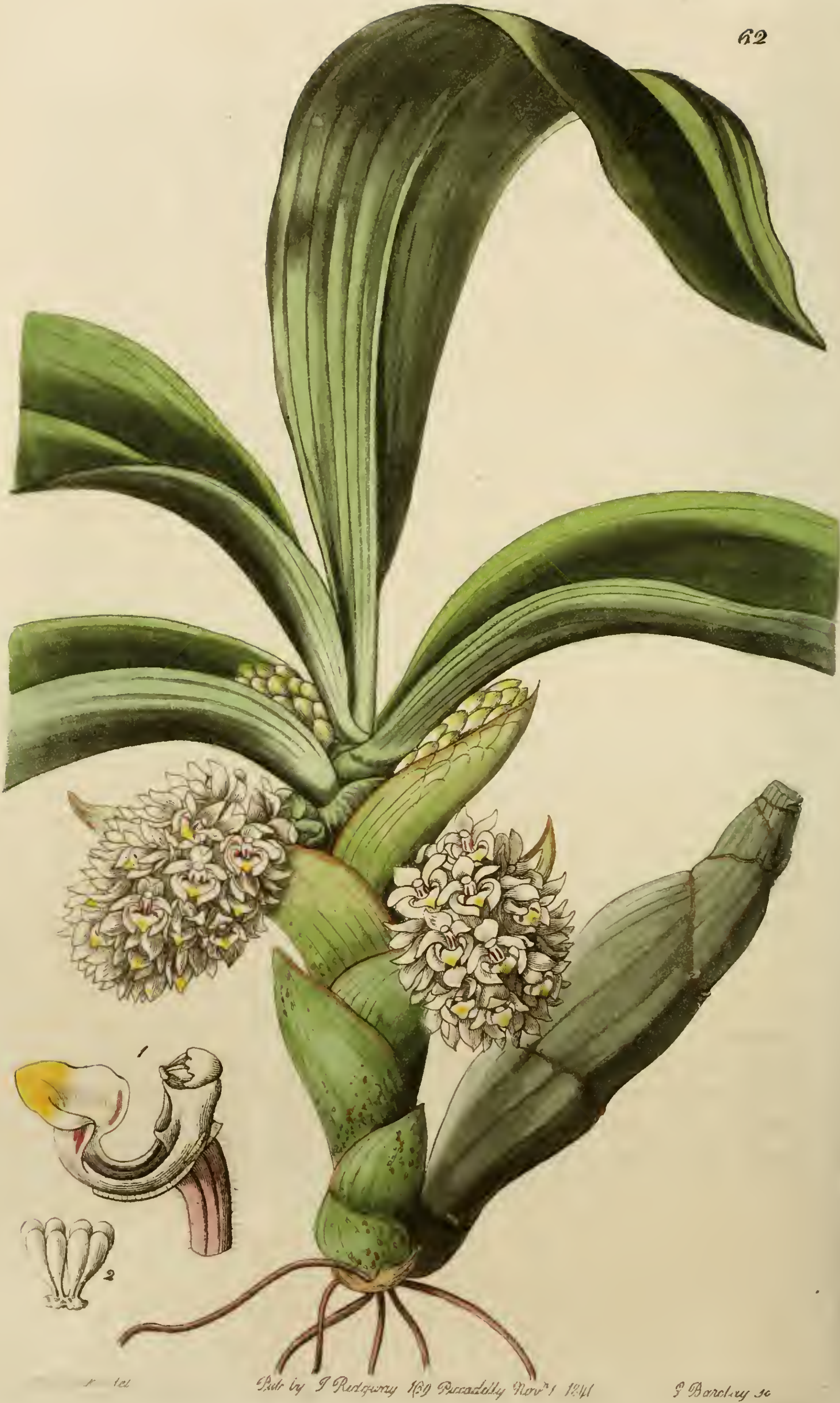
* Among the synonymes adduced by Dioscorides to his *αιζωον μεγα*, the Sempervivum arboreum, occurs the word *αιωνιον*, which Mr. Webb has adopted for the present genus.

Of these the genus Æonium at least seems well characterized by having its seed-vessels partially sunk in the receptacle and not regularly opening by the ventral suture, but only at the base and back by an irregular tearing. Of the plants referred to this genus, one, "which may be regarded as the precursor of the genus," is the Sempervivum arboreum, which occurs farthest to the northward; three others are from Madeira, viz. S. glandulosum, tabulæforme, and glutinosum; the rest are from the Canaries, and include Sempervivum Smithii, barbatum, villosum, ciliatum, cæspitosum, Haworthii, urbicum and canariense.

The plant now figured was raised some years ago in the Nursery of Mr. Young of Milford, from seeds sent by Mr. Webb from the Canaries; where it is found on the stones and bare rocks of the ancient cavern of Tigalate, near the base of the Pine region of the isle of Palma, on the road from Mazo to Fuencaliente. It was named in allusion to the streaks of crimson on its leaves, and to the wounds which Messrs. Webb and Berthellot received from an accident in the neighbourhood of the basaltic rocks where it grows. The height of the plant in its wild state is said to be about two feet; the specimen from which our figure was taken was not half so tall.

Our figure was executed in May, 1834.

It requires the same treatment as Mesembryanthemum and similar plants, like most of which it is best cultivated in wide, shallow pots, well drained with potsherds, and filled with a mixture of loam and old mortar, covered with fine sand. It requires a warm dry situation during summer, and a cool situation with very little water during winter.



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Pub by J Ridgway 169 Piccadilly Novr 1 1841

J Barclay sc

ĔRĬĂ convallarioīdĕs.

The Close-headed Woolwort.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § MALAXEÆ.
ERIA. *Botanical Register, vol.* 11. *fol.* 904.

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§ Tonsæ ; *inflorescentiâ glabrâ v. leviter pubescente.*

E. *convallarioides;* caulibus compressis junioribus densè et laxè vaginatis, foliis oblongo-lanceolatis multinerviis, racemis densissimis oblongis cernuis breviter pedunculatis, floribus subglobosis leviter pubescentibus, labello subcordato ovato acuto inappendiculato.

Eria convallarioides. *Lindl. in Wall. Cat. no.* 1975. *Gen. & Sp. Orch. no.* 25.
Pinalia. *Lindl. orch. scel. n.* 71. *p.* 23. *c. ic.*
Pinalia alba. *Hamilton mss. apud Don Prodr.*
Octomeria spicata. *Don Prodr.* 31.
Octomeria convallarioides. *Wallich in ic. Bibl. Anglo-Indicæ, n.* 1141.

For fresh specimens of this plant I am indebted to Mr. Rogers and Messrs. Loddiges, both of whom have succeeded in flowering it. From the examination of dried specimens I was at one time inclined to regard it as the type of a genus distinct from Eria; but that was evidently an erroneous impression, for there are no marks in the plant at all at variance with those proper to Eria in its common state. It has small whitish flowers, collected in close heads in the axils of broad striated leaves; they have no smell, and the species proves much less pretty than was expected. The specific character in the work above quoted, made up chiefly from bad Indian drawings, requires considerable correction, especially as regards the flowers, which are nearly destitute of hairs, and the lip, which is entire, and not 3-toothed. I also find that the anther is not dorsal, but merely contracts towards the back of the column, so as to expose the pollen-masses.

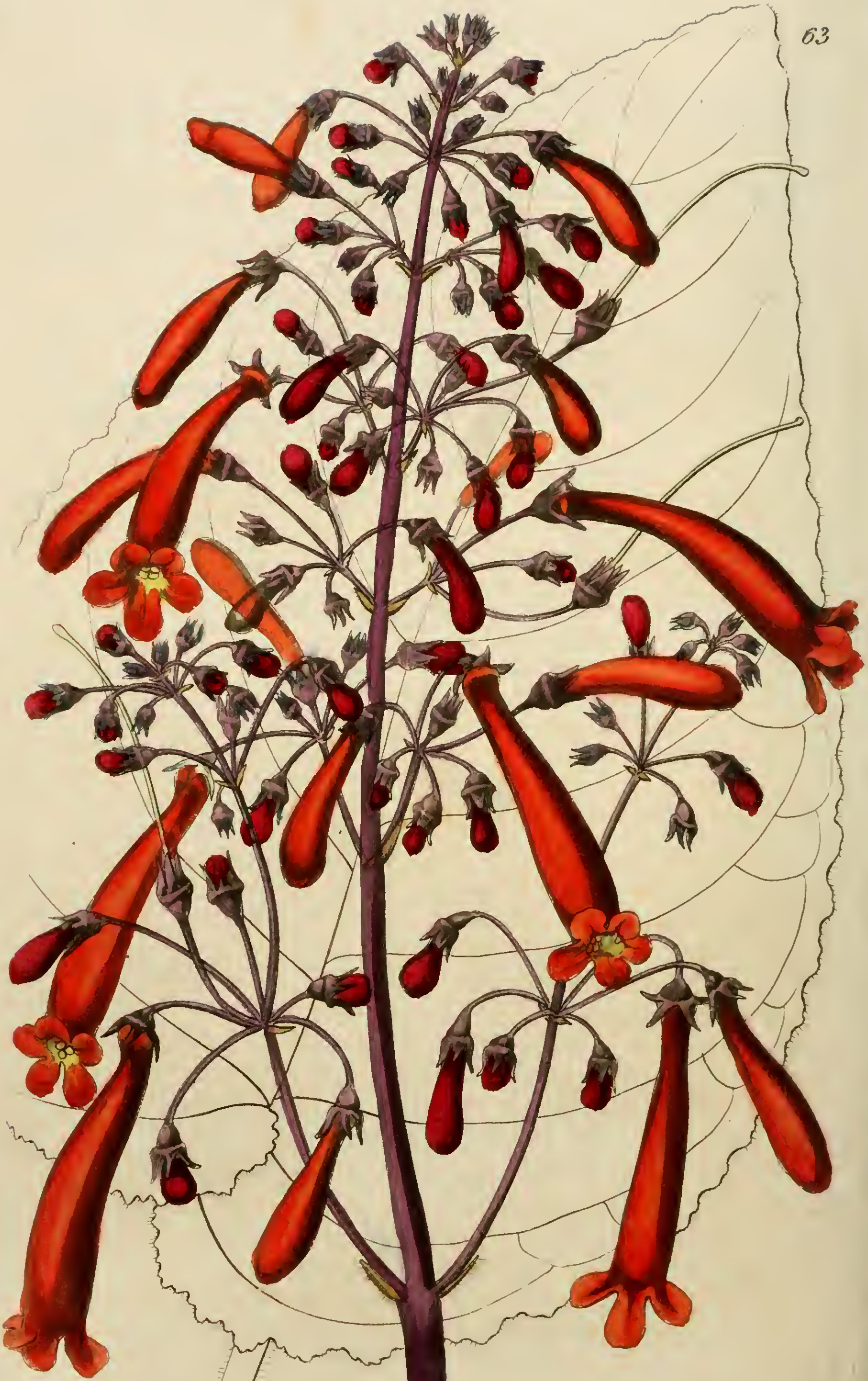
The specific name *Convallarioides* is by no means well applied; alluding to the form and not the smell of the flowers;

in the first respect there is very little resemblance to the Lily of the Valley, and in the second none at all.

Fig. 1. represents a profile view of the lip and column. Fig. 2. shows the pollen-masses holding together by a little granular viscid matter.

In cultivation this requires a hot damp stove. It should have abundance of water when growing, and should never be kept so dry at any season as plants with large pseudo-bulbs. In other respects it may have the same treatment as other orchidaceous plants.

63



Miss Drake del. Pub by J Ridgway 169 Piccadilly Novr 1 1841 G Barclay sc.

GESNĒRĂ dīscŏlŏr.

Varnished Gesnera.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Gesneraceæ.
GESNERA. Botanical Register, vol. 4. *fol.* 329.

G. *discolor;* foliis oppositis petiolatis coriaceis induratis cordatis ovatis dentatis supra glabriusculis subtus tomentosis, cymis multifloris in paniculam aphyllam purpuream glaberrimam quasi vernicatam dispositis, pedicellis elongatis cernuis, corollis clavato-cylindraceis glaberrimis, faucis planæ subæqualis laciniis rotundatis.

All I know of this plant is derived from a specimen belonging to Mr. Young of the Nursery, Epsom, which was exhibited by him at the meetings in the Garden of the Horticultural Society in May and June last, on the latter of which occasions the accompanying figure was made.

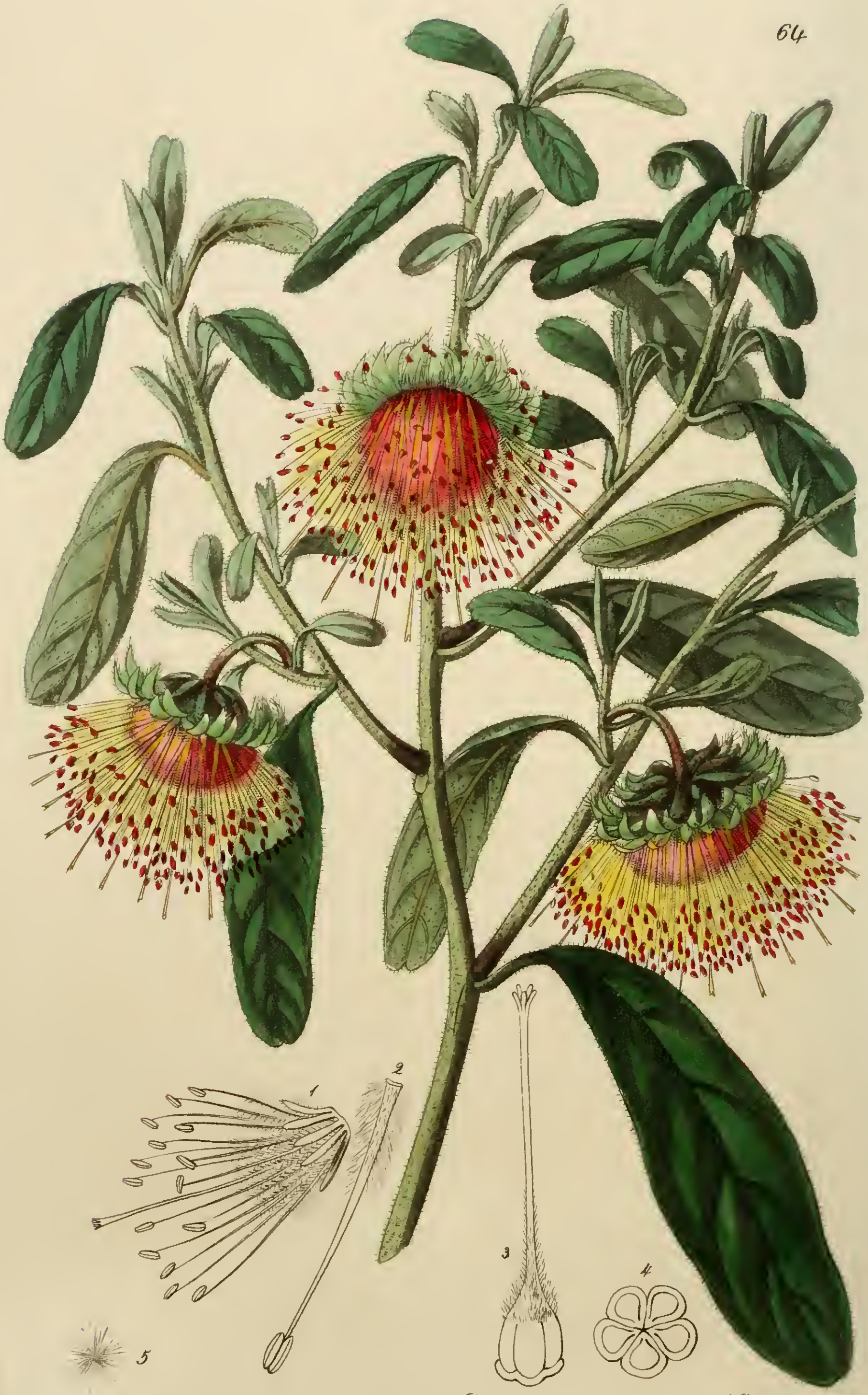
It was reported to come from Brazil, and formed a handsome herbaceous plant about two feet high. The leaves were very large, and hard, with the lobes of their cordate base overlapping each other; they were somewhat shining and smooth on the upper side, and hairy beneath. The flowers were almost two inches long, cylindrical, scarlet, with a flat limb, and dispersed in a large leafless panicle, whose branches were of a deep purple colour and perfectly destitute of hairiness. Both they and the flowers were shining as if they had been varnished.

There are two plants described by DeCandolle, to both which this nearly approaches. The first is his *G. polyantha*, to which I should have referred it, but he does not say that the panicle is smooth and shining, a character so remarkable in this genus that it is not to be supposed that it was overlooked. The second is the *G. Sellowii* taken up from Von

Martius; but although that plant seems to have the same habit as the present, its flowers are said to be scarcely an inch long, and hairy; which is by no means the case here.

This plant requires the same treatment as other South American Gesneras already in our gardens. Whenever the stems and leaves die down in the autumn it should be removed to a dry and warm situation, where it will enjoy the season of repose which is natural to it. It is mistaken treatment to put plants of this kind in a cold place after the growing season is past, although it is possible to keep them dry there. As soon as it shews signs of growth it should then be taken back into the moist stove, where the temperature is not excessive, re-potted and liberally supplied with water. It may be grown in any light loamy soil, rendered free by a mixture of peat, leaf mould and a little well-rotted dung, and it is easily propagated by cuttings.

64



Miss Drake del

Pub by J. Ridgway 169 Piccadilly Nov.r 1 1841

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DIPLOLÆNĂ Dampiērī.

Dampier's Double Cup.

POLYANDRIA *MONOGYNIA.*

Nat. ord RUTACEÆ.

DIPLOLÆNA. R. Brown. Flores intra involucrum multipartitum in receptaculo plano confertìm sessiles, involucri laciniis imbricatim triseriatis, exterioribus tomentosis, interioribus petaloideis. *Calyx* nullus. *Corollæ* petala 5, v. abortu interdum pauciora, hypogyna, squamæformia, nuda v. ciliata. *Stamina* 10, hypogyna, petalis multo longiora, exserta, alterna petalis opposita paullo breviora ; filamenta filiformi-subulata, inferne ciliata, superne glabra ; antheræ introrsæ, biloculares, oblongæ, incumbentes, longitudinaliter dehiscentes. *Ovaria* 5, gynophoro depresso insidentia, unilocularia, glabra. *Ovula* in loculis gemina, angulo centrali inserta, contiguè superposita, superius adscendens, inferius pendulum. *Styli* 5, ex ovariorum angulo interiori, in unicum filiformem, basi hispidulum, stamina æquantem coaliti ; *stigma* obtuse quinquelobum. *Capsula* pentacocca, coccis bivalvibus, endocarpio cartilagineo, soluto, elastice bilobo, basi seminifero, abortu monospermo. *Semen* oblongum, testa crustacea, umbilico ventrali, lineari. *Embryo* in axi albuminis carnosi rectus, teretiusculus, gracilis, radicula supera. ——Frutices *in Nova-Hollandia austro-occidentali indigeni ;* foliis *alternis, petiolatis, ovatis* v. *obovatis, obtusis* v. *retusis, crassis,* ramulisque *coriaceis, penninerviis, integerrimis, glanduloso-punctatis, supra pube stellata conspersis, subtus dense albo-tomentosis,* involucris *multifloris, florem unicum simulantibus, terminalibus, solitariis sub anthesi nutantibus.* Endl. gen. pl. p. 1156.

D. *Dampieri;* foliis obovato-oblongis emarginatis supernè viridibus glabris subtùs incanis. *Desfontaines in mem. mus.* 3. 449. *t.* 20. *DeCand. Prodr.* 1. 719.

This singular plant is one of the acquisitions from Swan River. Upon its first arrival great expectations were entertained of its beauty, in consequence of its flowers being known to be collected in dense heads from which the long stamens project to some distance. Upon producing its blossoms it has however been found that however singular the structure, the total want of brilliancy of colour renders it unfit for cultivation for ornamental purposes. It can only now be regarded as a Botanical curiosity.

In every thing except beauty it is extremely interesting. It is a plant botanically allied to Correa, and Boronia, without any external resemblance to those plants; it has the arrangement of parts found in Composite genera without any sort of affinity to them; and finally it is an apetalous genus among polypetalous ones.

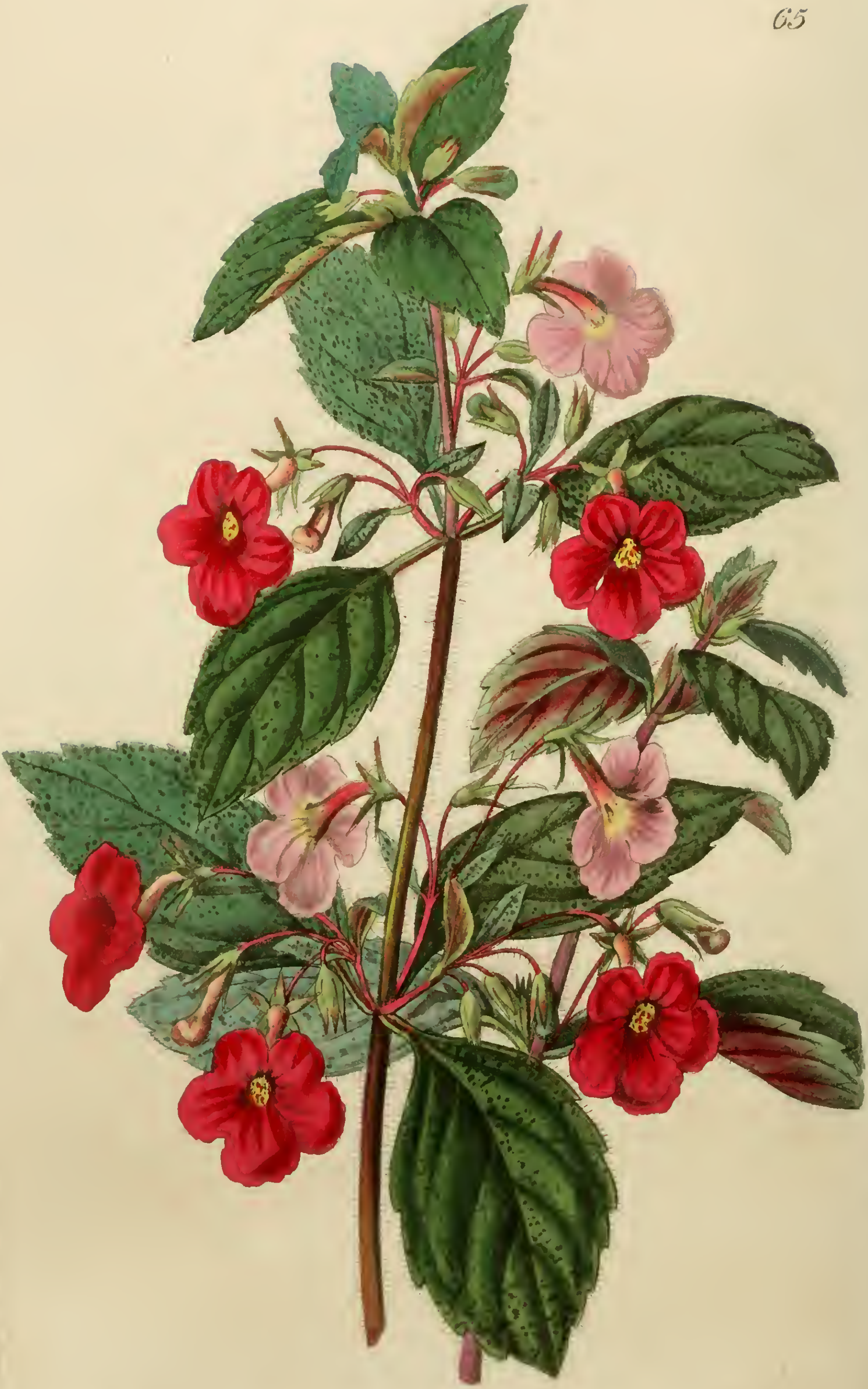
The inflorescence, in which this singular organization resides, is a true capitulum, surrounded by an involucrum of several series. Within the latter are collected many flowers, which are so pressed upon one another that no room is left for the development of calyx or corolla as separate organs, and consequently those parts are equally reduced to scales, and blended together till they can be no longer distinguished; their number however is by no means five, as is generally described; on the contrary, they are more than ten or some higher number than five. So of the stamens; their number is said by Botanists to be ten, but they exist to the extent of even fifteen, as is shewn in the accompanying figure. The fact being that the plant varies in this respect.

In the analyses shown in the accompanying plate, fig. 1. represents a single flower extracted from the involucre; 2. is a stamen; 3. represents the ovary with its style and stigma; 4. is a cross section of the ovary, and 5. one of the starry hairs with which all the green parts are covered.

The name borne by this plant is in allusion to its having two coverings for the flowers; one the involucrum, which protects all the flowers externally; and the other the scales which surround the base of the stamens. It is compounded of *διπλόος* double and *χλαῖνα* a cloak.

A rather robust hardy greenhouse shrub, requiring the same treatment as the Correas, and like them increased by cuttings of half-ripe wood, treated in the ordinary way and covered with a bell-glass. The plant flowers during the early part of summer.

65



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* ACHIMĒNĒS rŏsĕă.

The Rose-coloured Achimenes.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERACEÆ.

ACHIMENES. P. Browne. Calycis tubus ovario adnatus, limbus 5-partitus lobis lanceolatis. *Corolla* tubuloso-infundibuliformis basi hinc sæpe gibba, limbo plano 5-fido, lobis subæqualibus subrotundis. *Stamina* 4 didynama, antheris non cohærentibus. *Rudimentum stam.* quinti corollæ basi infernè impositum. *Nectarium* glandulosum annulare tenue. *Stylus* in stigma vix incrassatum obliquum aut subbilobum abiens. *Capsula* semibilocularis bivalvis, placentis parietalibus subsessilibus.——Herbæ *Americanæ erectæ villosæ.* Folia *opposita aut terno-verticillata petiolata dentata.* Pedicelli 1-*flori axillares.* Cor. *coccineæ aut purpureæ multo quam Gloxiniæ minores.* Radices, *saltem specierum ritè cognitarum,* bulbillis *squamosis onustæ.* DeCand. Prodr. VII.

A. *rosea;* foliis scabro-pilosis oppositis aut terno-verticillatis ovatis acutis serratis, pedicellis filiformibus plurifloris pilis longis patentibus vestitis, calycis lobis lanceolato-linearibus erectis corollâ triplò brevioribus, corollæ limbo tubo æquali.

The name now applied to such plants as these was originally given by Dr. Patrick Browne, in his History of Jamaica, to two species, one of which has long been common in our gardens. At a later period L'Heritier called the latter Cyrilla, and under the name of C. pulchella it is familiar to all lovers of beautiful plants; but as it was very different from the Cyrilla of Linnæus, that name was subsequently cancelled. Then it was that Willdenow proposed the name of Trevirana, in which he has been followed by others; and we think it would have been far better if that name had been retained. Now however M. DeCandolle, following Persoon and Nees v. Esenbeck, has restored the name of Achimenes, and it would be more inconvenient to resist the innovation than to adopt it, since it has taken place in a work so universally employed by systematists as the Prodromus of M. De Candolle. Therefore it is that we agree to the old *Cyrilla pulchella*, otherwise *Trevirania coccinea*, being styled *Achimenes coccinea*, and that we name the present species *Achimenes rosea.*

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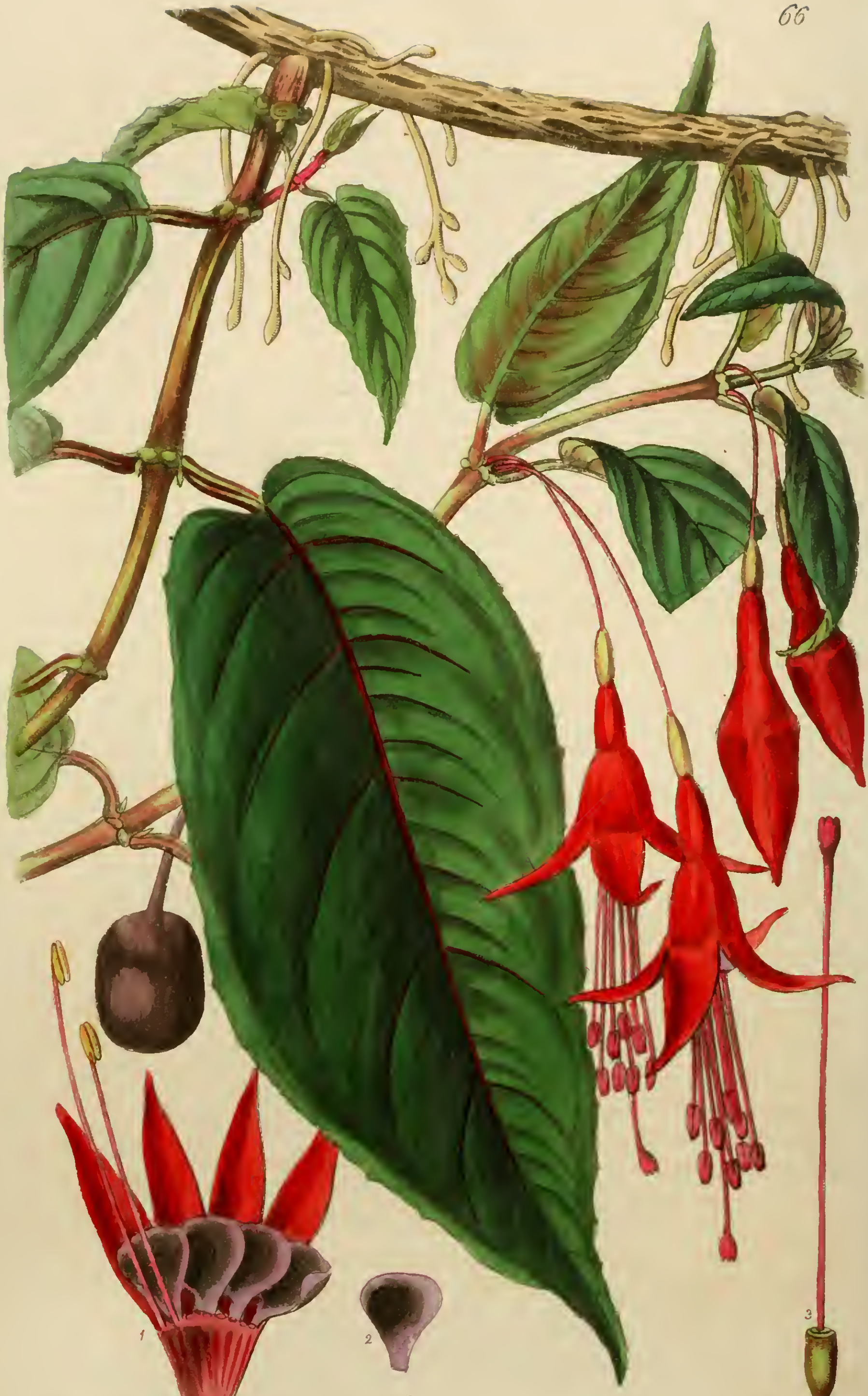
* The derivation of this word is unknown. Smith conjectures it to have been formed from α privative and χειμαινω to be wintry or tempestuous, in supposed allusion to the plant not liking wintry weather; a very forced explanation as it seems to us: but we have nothing better to offer

It is one of the most charming plants in our gardens, with the habit and general structure of A. coccinea, and the same disposition to pour forth masses of blossoms, but with deep rich rosy flowers instead of scarlet ones. How it differs from it otherwise it is not indeed very easy to say; unless it is that the peduncles are more slender, with more spreading hairs ; and a general tendency to branch. The proportion, too, between the limb and tube of the corolla seems materially different ; and the leaves are covered with elevated asperities on each of which a hair is placed.

Mr. Hartweg found it in Guatemala, and sent roots of it to the Horticultural Society, in whose garden it has flowered for the last three months. It will soon be common : but it will not be possible for the Society to commence its distribution before the succeeding spring.

It proves as easy to manage as the common A. coccinea. The stems die off after flowering, and the roots must then be kept perfectly dry throughout the winter, and spring before it begins to grow. When it shews signs of growth it should be repotted and divided if necessary, and then put in a situation near the light and freely watered. It is best to start it in a gentle heat, such as in a warm greenhouse, or cucumber-frame, to enable it to form its stems and flower-buds, and then it may be brought out to flower in the conservatory or sitting room. It will grow in any rich free soil, and may be propagated by cuttings, or by the numerous imbricated buds which it forms both underground and on the stem.



Pub by J. Ridgway 169 Piccadilly Decr 1 1841

FŪCHSĬĂ rādĭcāns.

Rooting Fuchsia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRACEÆ.

FUCHSIA. Botanical Register, vol. 15, *fol.* 1269.

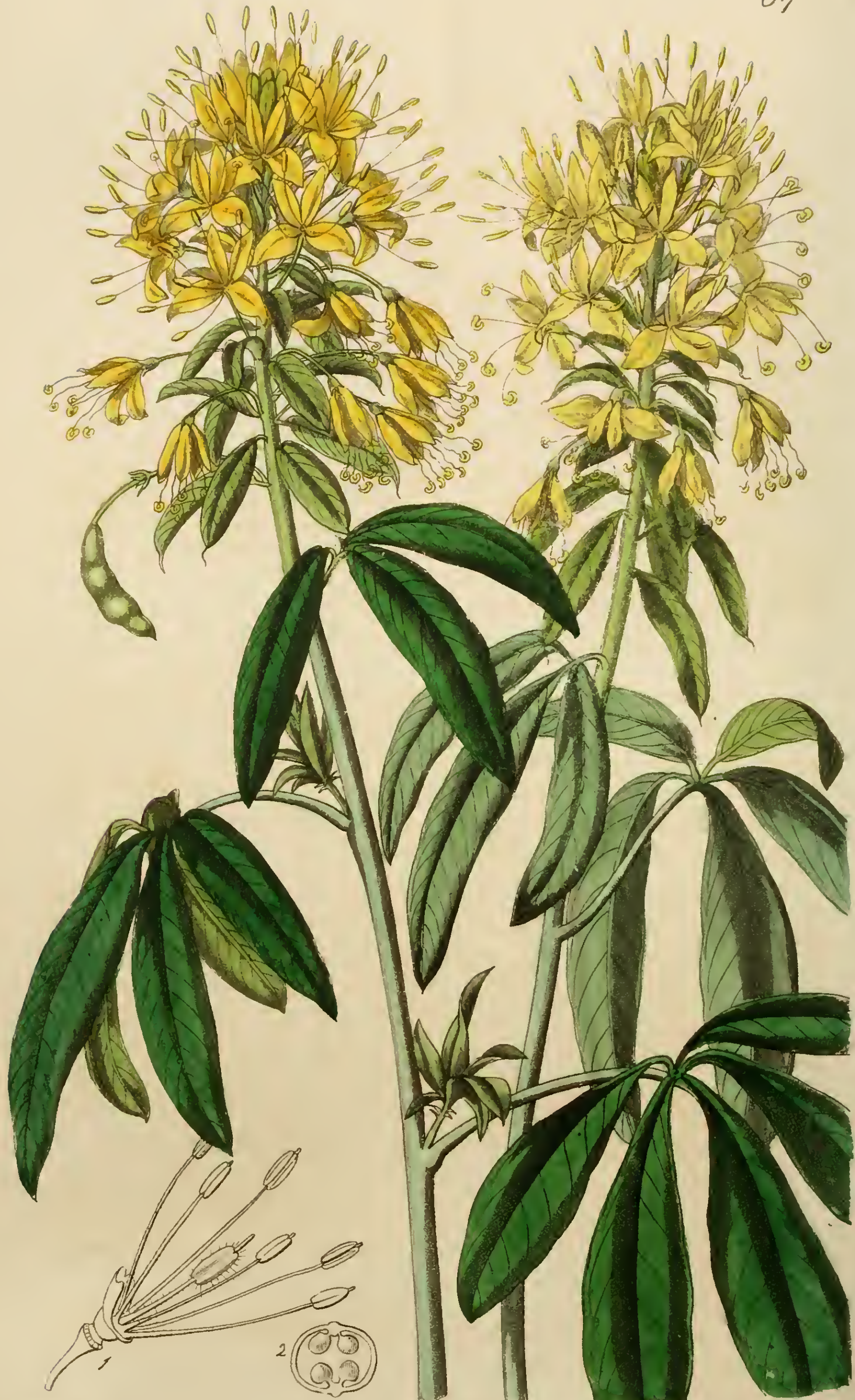
F. *radicans;* (Miers in litt.) caule prostrato radicante, foliis ellipticis acuminatis denticulatis glabris basi cordatis, floribus axillaribus geminis pendulis, alabastro subrhombeo quadrangulari, petalis cuneatis tubo calycis vix longioribus, stigmate capitato, baccâ subrotundo oblongâ. *Bot. Reg.* 1841. *misc. no.* 167.

Frutex *Brasiliensis volubilis.* Rami *cuticulis solubilibus obtecti (juniores nitidi rubescentes glabri floriferi) axillis radicantibus.* Folia *elliptica acuminata, glabra, obsoletè denticulata,* 2-2-4 *in quâque axillâ.* Flores *bipollicares,* 2-3-4, *longè pedunculati, penduli, coccinei.* Calycis *tubus medio constrictus, lobis patentibus subæquantibus.* Petala *ferè inclusa, convoluta, violacea.* Stamina *longè exserta, alterna breviora.* Stigma *clavatum* 4-*lobum.* Miers.

"A long trailing perennial shrub, the *stems* of which, much branched, attain a length of twenty feet and upwards: these main stems are about half an inch in diameter, of a pale brown colour, and rough from the irregular splitting of the several coats of bark: the younger branches are purplish and smooth, and those which are floriferous, present generally smaller leaves. The nodose axils of the branches, after the second year, throw out many stoloniferous shoots, which frequently take root upon the trees on which the plant clings for support. The *root* consists of a mass of long slender fibrils, closely matted together. The *leaves*, sometimes opposite, often three or four in each axil, are elliptic, roundish at base, with an acuminate apex, three inches long by one and a half broad, obsoletely denticulate, quite glabrous, except beneath on each side of the midrib, where a little pubescence is seen. The *petiole* is half an inch long, fleshy, terete, channelled above, glabrous, and purplish red, which colour also shows itself on the thickened midrib and the underpart of the young leaves. The *stipules* are interpetiolar, with a very acute reflected deciduous apex, and at the base forming thickened glands, which give a remarkably nodose appearance to the axils. The *flowers*, equal in number to the leaves in each axil, and about two inches in length, are pendulous upon slender reddish *peduncles* of the same length. The *calyx* is of a bright scarlet; the tubular part, which is about equal in length to the lobes, is slightly contracted in the middle, where the petals and stamens are inserted, quite glabrous outside, but slightly pubescent within, the upper half being funnel-shaped: the border, which is much expanded, is divided into four equal, rather fleshy, lanceolate segments, suddenly acute at the apex. The *petals*, convolutely embracing the stamens, are cuneate, of a deep purple colour, and almost wholly enclosed within the tubular part of the calyx. The *stamens*, of a deep red colour, are filiform, and of considerable length; four being somewhat longer than the calycine segments, the other alternate four being of still greater length. The *style* is filiform, somewhat longer than the stamens; the exserted portion is deep red, polished and glabrous; that within the calycine tube is paler, and rather pubescent. The *stigma* is red, polished, clavate, with a four-lobed apex. The *berry* is ovate, of a deep reddish purple.

" I was greatly struck with this beautiful species when I first met with it in the Organ mountains in 1829, clinging in long festoons from a very tall tree, and exhibiting abundance of its brilliant flowers. It was also collected by Mr. Gardner, when he first botanized in the same range, (Gard. Collect. no. 375); and on my last visit to those mountains I planted a cutting, which I succeeded in bringing home, and which, although nearly four years old, has only now shewn its first blossom. The main stem has attained a length of eighteen feet, and it has many accessory branches of nearly equal length; the older stems throughout their entire length exhibit at each axil the peculiar stoloniform shoots shewn in the drawing, and these are sometimes observed also in the internodes bursting through the bark. It appears to me quite a novel species, approaching *F. affinis* of St. Hilaire, but differing in the proportions of its calyx, and in its general habit, in which last respect it bears a greater approximation to *F. apetala*, and *F. simplicicaulis*, of R. & P. whose branches are represented as having similar radicant shoots. From its handsome flowers, and trailing habit, this species is likely to become a favourite ornament in greenhouses, where it will flourish well; for though its native place is just within the tropics, it grows at an elevation of 3,000 feet, where it experiences during the nights of the Brazilian winter in those regions a temperature frequently as low as 35° to 40° Fah."

For the foregoing account I am indebted to John Miers, Esq. who introduced this remarkable species to this country. Although a native of Brazil, it seems to succeed perfectly in the greenhouse or conservatory. It is a free grower, and requires much the same treatment as the other Fuchsias in cultivation. It has a pendant trailing habit, and if planted in the border of the conservatory and trained to a pillar or stake would look well, particularly if it flowers freely. From its habit however and general appearance we should have feared that it would not have turned out such a free bloomer as the others, had it not already flowered on small plants at Birmingham. It strikes easily from cuttings.



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CLEŌMĒ lŭtĕă.

Golden Cleome.

HEXANDRIA *MONOGYNIA.*

Nat. ord. CAPPARIDACEÆ.

CLEOME. Botanical Register, vol. 16, *fol.* 1312.

C. *lutea;* glabra, foliis 3-5-foliolatis, foliolis oblongis lanceolatis utrinque acutis integris, sepalis basi tantùm connatis, petalis oblongo-ellipticis subsessilibus, staminibus æqualibus, fructu lineari brevi stipite longiore.
Cleome lutea. *Hooker Fl. Bor. Am.* 1. 70. 6. 25. *Torrey & Gray,* 1. 122.
Cleome aurea. *Torrey & Gray, l. c.*
Peritoma aurea. *Nuttall in Journ. Acad. Phil.* 7. 15.

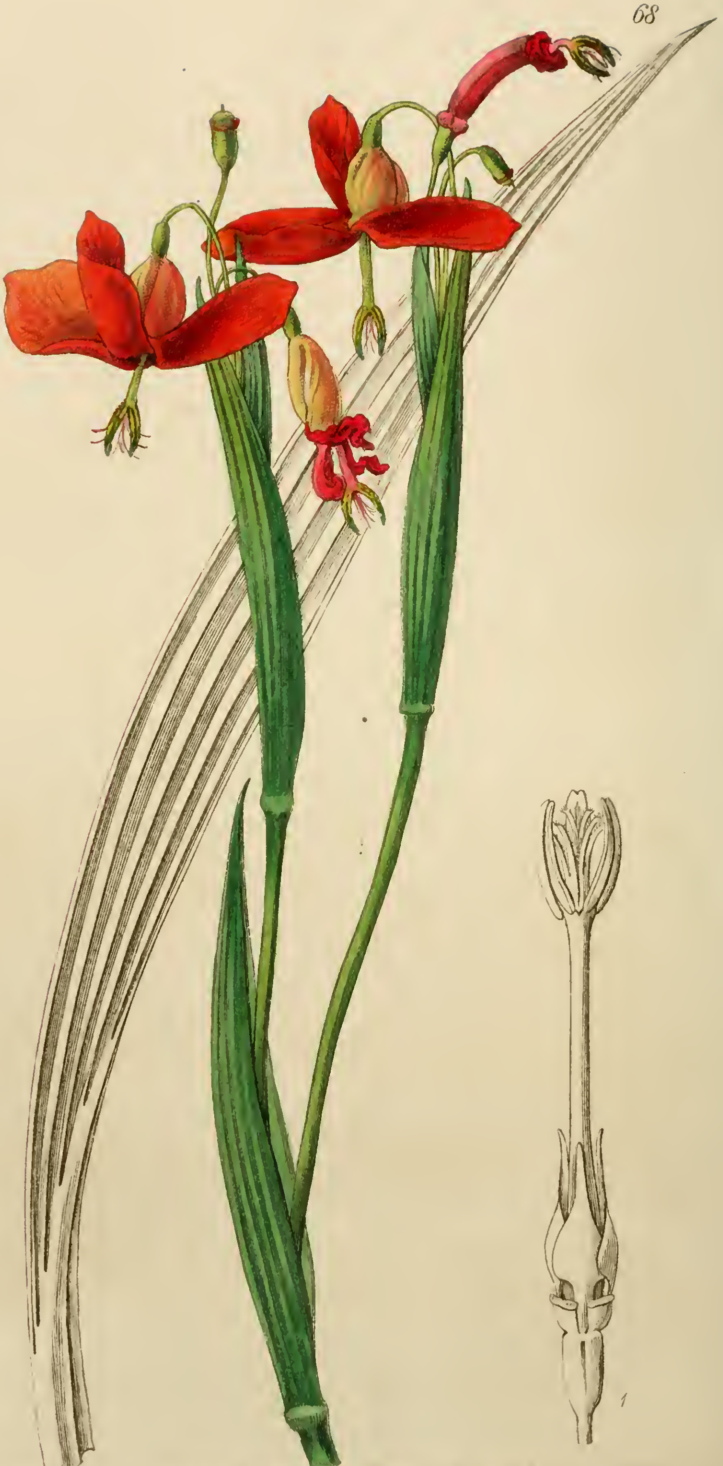
A rather pretty hardy annual from Fort Vancouver, on the North-west Coast of America, whence the seeds were procured by the late Henry Moreton Dyer, Esq. It flowers freely in July and August, and requires rather a strong soil and dry situation. The plants are subject to damping off, and will not seed in a confined situation.

In Torrey and Gray's Flora of North America, Cleome aurea is considered different from C. lutea, because it is larger in all its parts, and the stamens are equal instead of being four long with small anthers, and two short with long narrow anthers. But I have ascertained, by the examination of authentic specimens, that Sir William Hooker's artist has entirely misrepresented the stamens of C. lutea, and that they are in fact exactly like those of the plant before us. It is, therefore, necessary to unite these two supposed species.

It will now appear that this plant inhabits the North-west Coast of America, from the plains of the Platte to Lewis River, in inundated places, and on the Rocky and Oregon Mountains.

Fig. 1. shews the stamens, ovary, and disk. 2. is a transverse section of the ovary.

68



RIGIDĒLLĂ immaculātă.

Spotless Stiffstalk.

MONADELPHIA *TRIANDRIA.*

Nat. ord. Iridaceæ.

RIGIDELLA. *Botanical Register,* 1840. *t.* 16. *Obs.* Sepala ungue cymbiformi recto dextrorsum (a germine aspicienti) imbricante laminâ reflexâ; petala valdè minora recta ungue brevi lineari laminâ latiore; antheræ in columnâ stamineâ sessiles stigmatum tenuium lobos binos interpositæ loculis lateralibus. *Flores* penduli postmeridiani fugaces, ab horâ nonâ circ. ad primam noctis patuli. W. H.

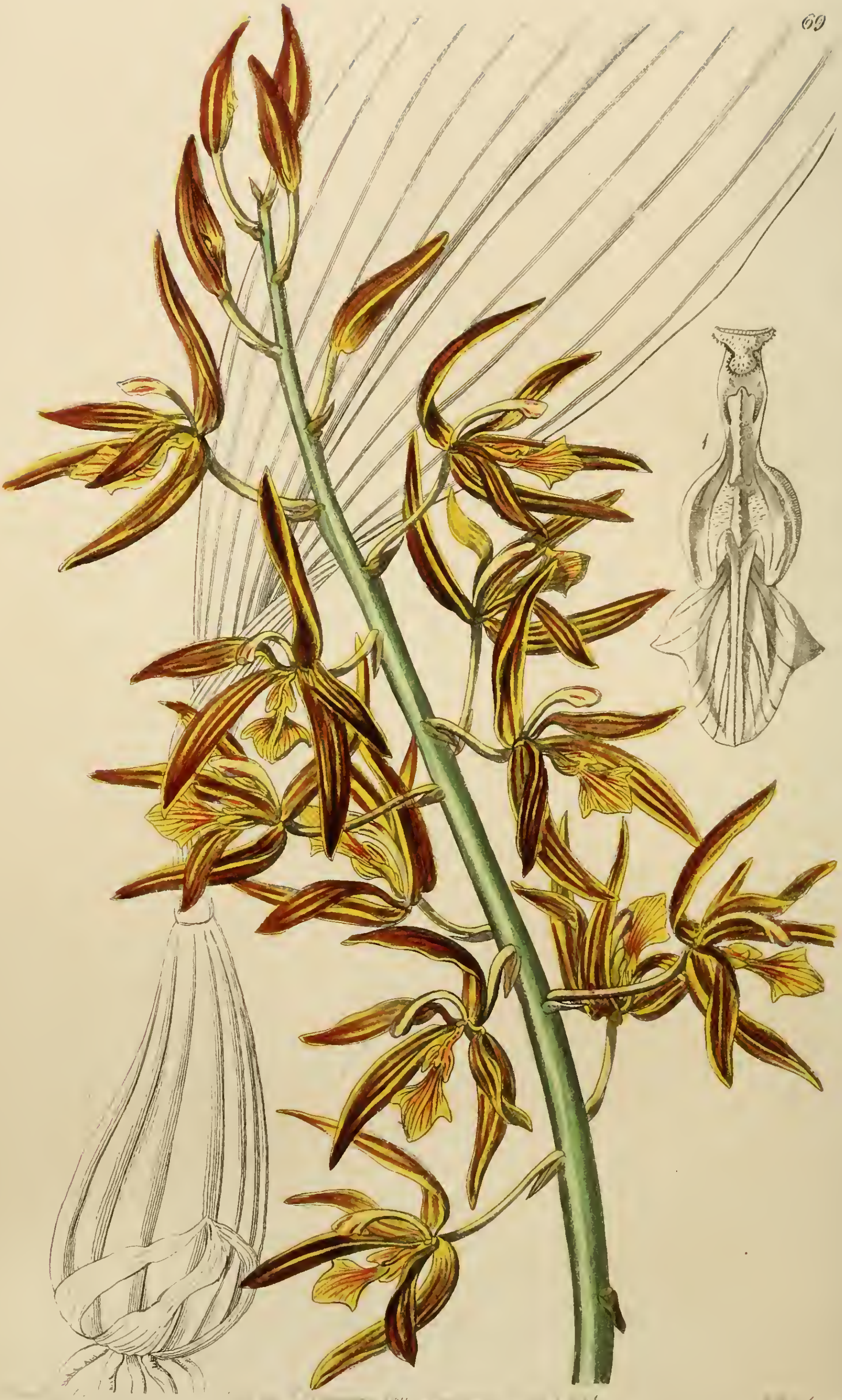
R. *immaculata;* sepalis acutis $1\frac{3}{8}$ unc. longis coccineis ungue pallidiore, petalis luteis laminâ cordatâ acuminatâ, columnâ stamineâ superne gradatim minore, antheris acutis inferne latis stigmata tenuia æquantibus, polline luteo. *Herbert in Bot. Reg.* 1841. *misc. no.* 133.

Concerning the botanical peculiarities of this curious genus, I have already, at t. 16 and no. 64 of the Register for 1840, stated all that appears necessary. It is only requisite now to add, with reference to the species before the reader, that its bulbs have been sent to the Horticultural Society from Guatemala by Mr. Hartweg.

It differs from the original species in having much smaller flowers, not spotted, and narrower leaves; otherwise they are nearly the same, except that this is the more slender and dwarf of the two.

Both are half-hardy bulbs, requiring exactly the same management as the Tigridia, to which they are very nearly allied.

Figure 1. represents the ovary, petals, staminal column, stamens and stigmas, as seen when the sepals are removed.



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* HOULLĔTĬĂ vittātă.

Striped Houlletia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.

HOULLETIA. Ad. Brongniart in Annales des Sciences Naturelles, vol. 15. *new series, p.* 37. *Lindley in Bot. Reg.* 1841, *misc p.* 47. *Perianthium* patens, sepalis sub-liberis: petalis paulo minoribus, unguiculatis. *Labellum* cum basi columnæ continuum, patens; hypochilio angusto, basi excavato quasi bilabiato, apice utrinque in laciniam producto, lobulo nano interjecto; metachilio nullo; epichilio angulari dilatato cum hypochilio articulato. *Columna* erecta, arcuata, clavata, semiteres, labello paulò brevior. *Anthera* bilocularis depressa. *Pollinia* 2, posticè fissa, caudiculâ lineari-lanceolatâ in glandulum acutam elongatâ, nec infixâ.——Herbæ *epiphytæ, pseudobulbosæ, Americæ æquinoctialis, foliis solitariis plicatis.* Scapi *radicales, erecti, apice racemosi.* Flores *speciosi, luteo-fusci, bracteis parvis nec spathaceis.* Sertum Orchidaceum, t. 43.

H. *vittata;* sepalis linearibus acutis, petalis lineari-lanceolatis basi tortis, hypochilii lobis ovatis obtusis rectis, epichilio rhombeo apice rotundato angulis lateralibus acutis. *Bot. Reg. misc.* 1841. *no.* 100.

This very curious plant was received by Messrs. Loddiges from Mr. Schomburgk. It has the erect raceme of Houlletia Brocklehurstiana, but the flowers are much smaller, form a pyramidal mass, and are yellow, streaked with so much deep chocolate-colour that the former is hardly seen except on the lip. From the similarity in habit between these plants and Maxillaria Warreana one would have thought they must have belonged to the same genus, but an examination of the fructification does not confirm that opinion.

The opinion of Mr. Adolphe Brongniart concerning the affinity of this genus has already been given at no. 47 of the miscellaneous matter of the present volume. It is not advisable to state any thing further upon the subject until the whole classification of Vandeous Orchidaceæ can be brought under consideration.

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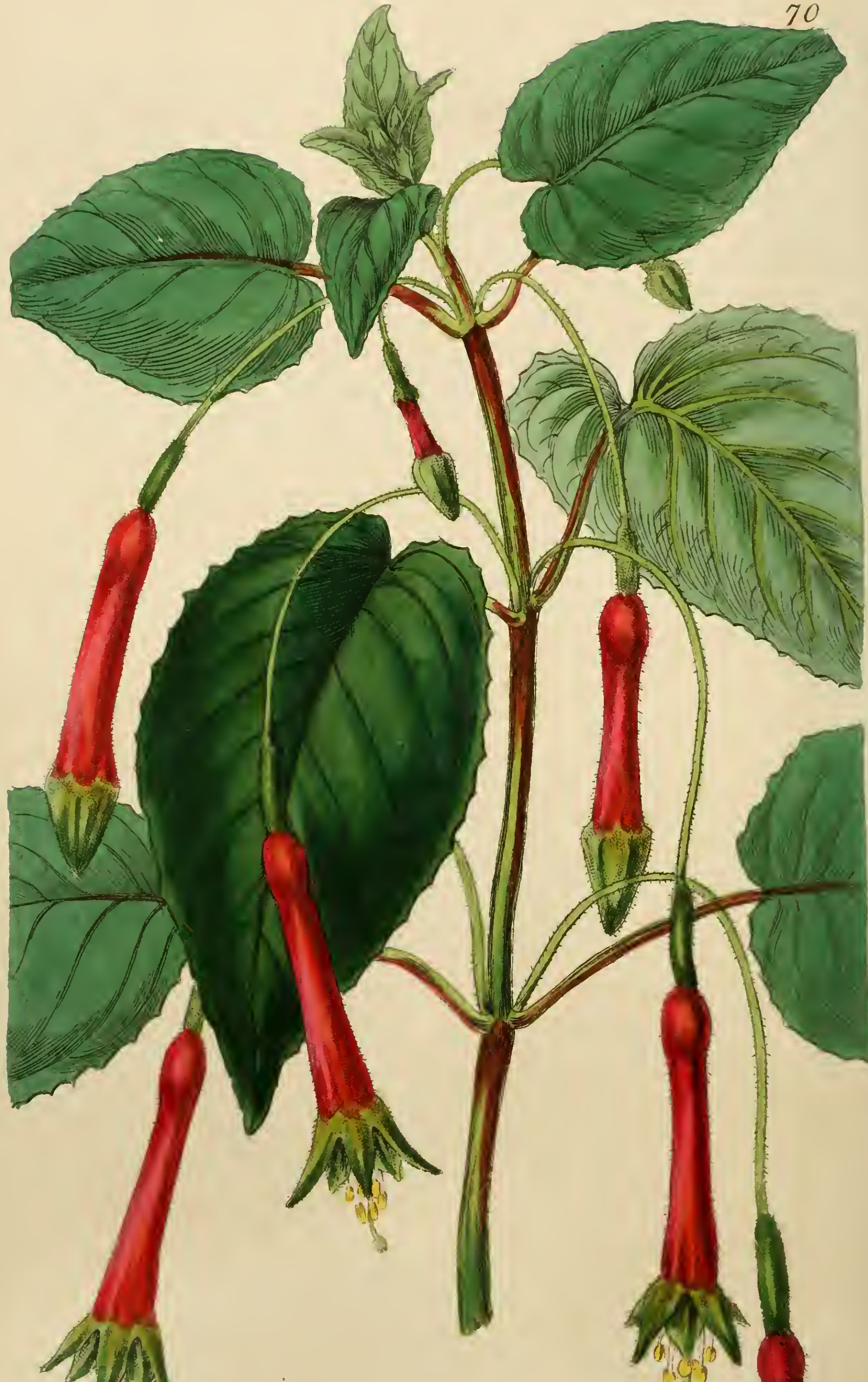
* So named after Mr. Houllet, a gardener, who accompanied Mr. Guillemin upon his mission to Brazil in search of evidence concerning the cultivation of Tea.

Figure 1, in the accompanying plate, represents the upper side of the labellum. At the base of the hypochilium is a downy tubercle, which projects towards a small three-toothed plate, which is directed backwards from the base of the metachilium. The latter has two falcate lobes which curve forwards, and have, in the recess formed by their junction, a triangular fleshy tooth. The epichilium is membranous, lozenge-shaped, and rounded at the point.



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FŪCHSĬĂ cordifŏlĭă.

Heart-leaved Fuchsia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRACEÆ.
FUCHSIA. Botanical Register, vol. 15, *fol.* 1269.

F. *cordifolia;* caule glabro, foliis oppositis v. ternatim verticillatis longè petiolatis latè cordatis acuminatis denticulatis minutè puberulis subtus subglabris, pedicellis axillaribus unifloris folio brevioribus, calycis pubescentis longè tubulosi laciniis petala ovata brevissimè acuminata subduplò superantibus. *Bentham Pl. Hartweg.* 74. *no.* 528.

The species of Fuchsia, numerous as they are in gardens, have still to be increased by some of the most interesting and handsome. If the woods of Mexico and Chile, now almost exhausted, have yielded us the species called thymifolia, microphylla, cylindrica, lycioides, fulgens, macrostema, gracilis, and all their train of beautiful hybrids, we have still the rich storehouse of the Cordilleras of Peru to investigate, from whence F. corymbiflora only, itself a treasure, has as yet appeared.

For these we may confidently look to Mr. Hartweg, who is now on his route from the Cinchona forests of Guayaquil to the untrodden mountains of Popayan, and along all that richly wooded district Fuchsias may be expected to abound.

Not that more accessible countries are exhausted; for in the present number two new forms are published, one from Mexico and the other from Brazil. The former, now before us, is remarkable for the rich green which terminates the scarlet flowers, which, if it takes something from their brilliancy, adds much to the novelty of their appearance. It has moreover a fine broad foliage, and when out of flower is handsomer than the generality of its race.

It was found by Mr Hartweg on Xetuch, a volcano in

Guatemala, at the height of 10,000 feet above the sea. The berry in the wild state is from one to one inch and a half long, and pleasant to the taste. The Guatemalese call it Melocotoncito, and apparently eat it. The bush itself is said to be five or six feet high.

It requires just the same treatment as others of the genus. We should expect some fine mules between this and F. gracilis or globosa; for they would give it richness of colour and many flowers, while it would give them a breadth of foliage they much want.

MISCELLANEOUS NOTICES.

1. PLEUROTHĀLLĬS *recūrvă*; folio obovato coriaceo subobliquo petiolo pluries longiore, spicâ brevi recurvâ, floribus pubescentibus, sepalis lateralibus connatis, petalis membranaceis rhombeis acutis, labello membranaceo ovato utrinque sinuato obtuso, columnæ margine petaloideo incurvo.

A small creeping plant, with short recurved spikes of dull pale purple flowers. Communicated by Mr. Geo. Graves from the garden of Mrs. Cannon of Stratford.

2. PLEUROTHĀLLĬS *lutĕŏlă*; folio ovato canaliculato acuto tridentato petiolo suo breviore, pedunculo trifloro folio adpresso eoque breviore, floribus glabris, sepalis lateralibus connatis omnibus carinatis, petalis spathulatis emarginatis, labello lineari obtuso canaliculato glabro.

Another new plant from the same collection as the last, with small yellow flowers. Mr. Graves informs me that both exhale the smell of a sliced cucumber in the middle of the day.

3. APŎRŪM *sinuātŭm*; foliis lanceolatis æquilateris approximatis acutis, floribus solitariis axillaribus, labello cuneato elongato intra apicem lineâ hippocrepicâ crassâ sinuatâ circumdato.

From Sincapore, where it was collected by Mr. Cuming. It has the habit of A. anceps, but its leaves are much narrower and longer, and the flowers are pale yellowish green. Communicated by Messrs. Loddiges, (132).

4. GONGŌRĂ *fūlvă*; var. *vitellina*.

There is a very pretty Gongora in several collections, with bright yellow flowers less spotted than usual, and altogether of a more lively aspect. It is from Mexico, and differs from *G. fulva* in having smaller leaves, and the upper half of the labellum distinctly shorter than the lower. It however agrees in so many other respects with that species, that I hesitate to regard it as more than a variety. Fine specimens have lately been received by Messrs. Loddiges from Oaxaca.

5. ARUNDĪNĂ *bambūsǣfŏlĭă.* Genera & Species of Orchid. Plants, p. 125.

This is an epiphyte, with the foliage and habit of a small Bamboo and the flowers of a Cattleya. It is a native of the hotter parts of India, especially of Assam and the Burmese territories. Roxburgh speaks of the blossoms as numerous, large, rosy, with the lip of a lively red purple and very beautiful; he also says that the stems are, when in flower, three, four, or even five feet high. It is certainly a charming plant. It has lately flowered with Messrs. Loddiges. Its natural station is said to be well-shaded places, on the face of moist rocks.

6. BRASSIA *Lawrenceana;* sepalis lateralibus elongatis, labello oblongo apice lanceolato subundulato: callo baseos simplici canaliculato pubescente.

A pretty species from Brazil, introduced by Mrs. Lawrence. It has pale yellow flowers of the size of *Brassia Lanceana*, and is very sweet-scented. A figure of it is in preparation.

7. APŎRŪM *cuspidātŭm* (Wallich in litt.); foliis lanceolatis, floribus solitariis axillaribus, labello emarginato apice crispo per medium obsoletè bilineato.

A plant of no beauty, with the habit of *Aporum anceps*, but with much smaller flowers. It was sent by Dr. Wallich to Messrs. Loddiges with the name it now bears.

8. DENDRŌBĬŪM *tetragōnūm.* Cunningham in Botanical Register, 1839, misc. no. 30.

This plant has flowered with Messrs. Loddiges. It is a pretty species with spider-like flowers, whose sepals and petals are produced into long tapering points. They are yellowish green, bordered with brownish red. The lip is pale yellow, streaked with narrow bands of crimson. Messrs. Loddiges cultivate it on a piece of dry wood in their Cactus house.

9. CLIĀNTHŬS *cārnĕŭs* (Streblorhiza speciosa, *Endl. prodr. fl. Norfolk*, 92.)

It is now some years since this handsome plant was introduced from Norfolk Island, and dispersed through the country with an exaggerated account of its beauty, under the name of *Streblorhiza speciosa*, by which it was described by Dr. Endlicher in his Prodromus of the Flora of Norfolk Island; a small systematic work drawn up from the materials of the late Mr. Ferdinand Bauer. It was originally found on Philip's Island, a rocky fragment detached from the mainland on the south. Since the publication of the work just quoted the learned author has ascertained that the genus does not really differ from Clianthus, to which it is therefore reduced. Although not the magnificent plant it was said to be, it is certainly a species well worthy of cultivation. Its real character cannot be more truly stated than in the following extract of a letter from Mr. Pince of Exeter, in whose extensive collection it has recently flowered, and to whom I am indebted for a specimen.

"In a cold conservatory it is covered with bunches of flowers, and has succession enough to continue so for a month or two longer. I think it was at first over-rated, and then as erroneously condemned. I am of opinion that it will prove a very good conservatory creeper; it twines freely of its own accord up one of the pillars of our Camellia house, and has fine evergreen foliage."

10. ACĂCĬĂ *platȳptĕră*; aphylla, hirsuta, ramis latis alatis, phyllodiis brevibus decurrentibus obliquè truncatis: nervo diagonali ex angulo inferiore decurvo mucronato ortum suum ducente, capitulis solitariis breviter pedunculatis.

A greenhouse shrub from the Swan River, recently raised in the Exeter nursery, by Messrs. Lucombe. Pince, and Co. It has the general characters of *Acacia alata*; but is more coarsely hairy than any variety yet seen of that species, and the wings to its stem are much broader. The imperfect expansions that represent the leaves are obliquely cut off, and turned downwards at the lower angle, which is tipped with a projecting point that forms the upper extremity of a rib which runs thence in a diagonal direction till it reaches the axil. The flowers are very bright deep yellow, and collected in small balls, whose stalk is about equal to their own diameter.

11. SOBRĀLĬĂ *sēssĭlĭs*; caule foliisque subtùs nigro-pubescentibus, foliis sessilibus oblongo-lanceolatis acuminatis 2 terminalibus squamæformibu

acuminatis herbaceis, floribus sessilibus, labello rhombeo-oblongo glabro lamellis 2 intramarginalibus pone basin.

At length Messrs. Loddiges have succeeded in flowering a species of Sobralia, which was found in Demerara by Mr. Schomburgk; unfortunately, however, not one of the finest species. I previously possessed wild specimens of it from Mr. Schomburgk, and they show that the garden plant is quite as perfect as in its native meadows. It has a reed-like stem covered with small black hairs; and stiff-ribbed taper-pointed leaves. From the summit of the stem there appears a single rose-coloured flower, which is very fugacious. The lip is many degrees darker than the other parts. The plant will shortly be figured with a further account of it.

12. MONACHĀNTHŬS *Bushnānī.* Hooker in Botanical Magazine, t. 3832.

This plant is clearly a slight variety of *Catasetum* (Monachanthus) *discolor*, with the colour more yellow-green than usual, and the apex of the lip produced into a sharp point. If care is not taken we shall have the genus Catasetum a most prolific source of spurious species, as indeed it has already become. In some instances it is difficult to judge whether a new form is specifically distinct or not; but in the present instance there can be no doubt upon the subject. This is a rather pretty variety.

13. CALECTĀSĬĂ *cyănĕă.* R. Brown Prodromus Floræ Novæ Hollandiæ, p. 264. Flinders's Voyage, Appendix t. 9.

This, one of the most beautiful plants of the Australasian flora, has recently been well figured in the Botanical Magazine, t. 3834. We however regret to say that the species still remains to be introduced. Our object in calling attention to the figure is, that persons in communication with Western Australia may transmit that figure to their correspondents, with a request that its *ripe* seeds may be sent home. It is a very common shrub in sandy soil, at Swan River, King George's Sound, and probably on all parts of the South-west coast. It is doubtful whether our gardens yet possess any species so perfectly beautiful as this is, and as its flowers retain their brilliant colours when dried, it is probable that it will prove, when we obtain it, a new kind of "Everlasting."

It forms a small heath-like bush, about a foot high, and its branches are covered with flowers resembling 6-pointed stars, *of the most intense and brilliant blue.*

14. CYRTOCHĪLŪM *maculātūm,* var. *ecornutum.* Bot. Mag. t. 3836.

This does not appear to be in any respect different from the common state of this pretty species.

15. DENDRŌBĬŬM *moschātūm.* Wallich in Lindl. Gen. & Sp. Orch. p. 82.

Of this noble plant there is a good figure in the Botanical Magazine, t. 3837, where Sir William Hooker states his opinion that the *D. Calceolaria* of his Exotic Flora is a mere variety of it.

16. ABŪTĬLŌN *striātūm.* Dickson in Bot. Reg. 1839. misc. no. 53.

Of this charming plant a figure is given in the Botanical Magazine, t. 3840, whence it appears that Mr. Tweedie, of Buenos Ayres, is the person by whom its seeds were originally sent home, and that in the year 1832 it was described by Dr. Gillies, in the Botanical Miscellany, under the name of *Sida picta.* But as the plant is clearly an Abutilon, and as the genus Abutilon is certainly distinct from Sida, there is no occasion to alter the name it now universally bears in gardens. Sir William Hooker suggests that in all probability it will succeed in the open air, especially during the summer months. We fear, however, its foliage and flowers are both too tender to preserve their beauty if exposed to a low temperature, or if beaten by wind and cold rain.

17. ARMĔRĬĂ *fasciculātă.* Willd. enum. Hort. berol. 1. p. 334.

A handsome shrubby "thrift," forming a pretty bush, with long stiff leaves like those of a pine, is not uncommon in the gardens near London, under the name of *Armeria scabra,* and with the reputation of a Cape plant. This species is really a native of Corsica, near Ajaccio, and of Portugal, and is the *Statice lusitanica fruticosa maritima magno flore* of Tournefort's Institutions. It is worth cultivation, especially as a rock plant, but it needs protection in the winter near London. It will soon be figured here.

18. PIMELÊĂ *spectābĭlĭs*. Lindley's Swan River Plants, p. xli. no. 193.

This, one of the very prettiest of greenhouse shrubs, has been raised in the garden of the Horticultural Society, from Swan River seeds. It has glaucous narrow leaves, arranged in four rows, and large heads of pink flowers, collected within broad floral leaves, richly stained and bordered with crimson.

19. PHOLIDŌTĂ *undulātă*. Lindl. Gen. & Sp. Orch. p. 37.

A native of the East Indies, whence it has been sent to Messrs. Loddiges by Dr. Wallich. It has ovate pseudobulbs tapering to the base; a pair of narrow leaves; and a drooping raceme of small pale dull reddish flowers. It possesses little beauty.

20. EPIDĒNDRŪM *gladiātūm*. Lindl. Gen. & Sp. Orch. p. 106.

A Mexican species with green flowers like those of E. nutans, but not panicled, nor proceeding from a spathe, and smelling very like a sliced cucumber. Messrs. Loddiges have received it from Bolanos. Some of the old stems were three feet long. This is a much greater stature than has been before observed; for neither the specimens gathered by Mr. Hartweg at the Rancho del Ojo de Agua, nor those of Pavon in Mr. Lambert's herbarium are more than a foot high. The species belongs to the section Amphiglottium.

21. LÆLĬĂ *ālbĭdă*.

Mr. Barker has communicated a curious monster of this pretty plant, with the dorsal sepal united to the back of the column by means of a thin plate resembling a small knife-blade. What is very singular every flower of the specimen was in the same state.

22. IMPĂTĬĒNS *rŏsĕă*; annua, caule pubescente, foliis lineari-oblongis serratis, pedunculis unifloris aggregatis axillaribus foliis quadruplò brevioribus, sepalo dorsali mucronato inermi, calcare brevi ventricoso apice constricto incurvo, petalorum biloborum laciniâ nanâ rotundatâ majore oblongâ dimidiatâ obtusâ planiusculâ.

Another Indian species of this oriental genus, the seeds of which were presented to the Horticultural Society by the

Court of Directors of the East India Company. It is loaded with delicate pale rose-coloured flowers, which are arranged along the stem, and when gathered and placed in water in a sitting-room, it will continue to expand them for four or five weeks successively.

23. IPOMŒ̄Ă *batatoīdĕs*. Bentham Pl. Hartweg, p. 46.

The errors that have been committed about the source of the drug called Jalap are not a little remarkable. By one writer the drug was asserted to be the roots of the Common *Marvel of Peru;* and then it turned out that Jalap does not come from Peru. By another the *Convolvulus Jalapa* or *Ipomœa macrorhiza* of the southern states of the American Union was asserted to be its origin; but unfortunately that plant happens to have no greater purgative qualities than the common Sweet Potatoe. Then it was proved upon the authority of Dr. Schiede, and others, that a plant called *Ipomœa*, or *Exogonium*, *Purga*, was the real origin of the drug, for this traveller saw the people of Xalapa collecting it. But it was also asserted that other plants of the Convolvulaceous order are gathered; and a *Convolvulus orizabensis*, with hairy stems and calyx, was said to be one of them. It now appears that the Mexicans call at least one more species "Purga," adding to it the term Macho or male; for Mr. Hartweg has sent home the subject of the present notice, which is altogether different from any of the species previously noticed as either "Purga" or "Purga Macho." What makes it the more interesting is its extraordinary beauty, which I think excels that of any of the species yet in gardens. The only plants of it in the country are two in an unhealthy state in the garden of the Horticultural Society. They have large oblong fleshy tubers, and produce flowers of the richest and most brilliant crimson, or rather purple, which it is possible to conceive. Unfortunately it has not yet been possible to propagate them.

24. ĂBĬĒS *Khŭtrōw*. Royle's Illustrations, p. 353. t. 84. f. 1.

In the last number of the Gardener's Magazine is the following passage, concerning this plant.

"Abies Smithiana, *Wallich, Arb. Brit. p.* 2317. *fig.* 2229.

This Indian fir has been very much confused, and is supposed by some to be the same as A. Morinda (also Khutrow) of Royle, but they are very distinct in the cones; cones of the true *A. Smithiana* having been sent to the Society by Dr. Wallich, and of *A. Morinda* (*Khutrow*), by Dr. Royle. The cones of *A. Smithiana* are not half the size of those of *A. Morinda*, but more conical, with the scales rather cuneated, and much divided at the margins; while those of *A. Morinda* (*Khutrow*) are bluntly oblong, with the scales rounded, nearly entire (mostly bilobed), much thicker and larger in proportion. I have not been able to detect any difference in the leaves of the young plants, but the young seedlings of *A. Smithiana* are much slenderer and smaller than those of *A. Morinda* of the same age. The tree in the Horticultural Society's Garden, of which a portrait is given in the Arb. Brit. vol. viii. t. 340. is *A. Smithiana*, Wall."

As this paragraph contains some rather important errors, it is necessary that they should be rectified.

In the first place the plant called Abies Smithiana, is figured by Dr. Wallich in his *Plantæ Asiaticæ rariores*, t. 246, and the name can belong to no other. Now that plant has the broad leaves of a Picea or Silver Fir, and the erect cones of the same section. Most assuredly the tree in the Horticultural Society's garden agrees with it in neither the one nor the other of those circumstances. If it is alleged that the cones of *A. Smithiana*, are represented as erect by some mistake on the part of Dr. Wallich, the peculiarity of its leaves still remains as a sufficient mark of distinction from the plant in the Horticultural Garden. But such an assertion is destitute of all proof: and Dr. Royle by no means supports it; he who had such ample means of studying Indian firs in their native mountains, merely says that the *opinions* of Mr. Lambert and Professor Don, lead him to suppose there may be some ambiguity on the subject. Certainly then the *Abies Morinda* of the Horticultural Garden is not *A. Smithiana*, whatever that may prove to be.

Mr. Gordon says that the cones of *A. Smithiana* are not half the size of those of *A. Khutrow*. Now the cones of the latter are figured by Dr. Royle, and measure as nearly as may be 6 inches in length; the cones of the former, as figured by Dr. Wallich are 5 inches 6-10ths and a half long; a difference which in such matters amounts to nothing. It is clear therefore that the cones Mr. Gordon has examined are not cones of *A. Smithiana* at all, which is also confirmed by his statement that the young seedlings of what he calls *A. Smithiana*, are much slenderer and smaller than those of *A. Morinda;* a circumstance completely at variance with the character of the former species.

That the Chiswick plant is *A. Khutrow* is asserted positively by Dr. Royle, who says he immediately recognised it. And its foliage corresponds with that represented at t. 14 of his illustrations.

While, however, Mr. Gordon seems wrong in his supposition that the *Abies Morinda* of the Horticultural Garden is *A. Smithiana*, he is certainly right in saying that he has two distinct kinds of cones of the Abies genus from British India. There are doubtless two Himalayan Spruces, of which one may be called *A. Khutrow*, while the other bears the name of *A. Morinda;* but to which the old plant in the Horticultural Garden belongs cannot be determined for the present.

25. ODONTOGLŌSSŪM *stellătūm;* pseudobulbo ovali compresso, folio solitario lanceolato recurvo, scapo subbifloro, bracteis ovarii triquetri medium haud attingentibus, sepalis petalisque æqualibus linearibus acuminatis herbaceis, labello rhomboideo grossè dentato appendice baseos truncato quadridentato libero.

A new species of epiphyte, imported by the Horticultural Society from Mexico, where it was found by Mr. Hartweg. It is a plant of nearly the same size and habit as *O. Rossii*, from which it differs in the sepals and petals being equally herbaceous and narrow, of a dull olive green, faintly spotted or rather clouded with purple. It has a pure white lip, and may be regarded as one of the handsomer species of epiphytes.

26. DENDRŌBĬŪM *calamifōrmĕ* (G. Loddiges); caule repente annulato, foliis teretibus pungentibus, racemo laxo terminali foliis breviore, bracteis minimis, sepalis petalisque erectis acuminatissimis, labello trilobo lineari-lanceolato: lobo medio setaceo acuminato crispato: lamellis axeos 3 membranaceis planis versus apicem crispis.

A pretty and graceful epiphyte from New Holland, imported by Messrs. Loddiges. Its cylindrical leaves are eight inches long. The flowers are seated on footstalks nearly an inch in length, including the ovary, and are a light yellow or cream colour, with the base stained with purple. The labellum is purple, beautifully crisped and spotted towards the upper end.

27. EPIDĒNDRŪM (Aulizeum) *vivĭpărūm;* caule fusiformi diphyllo pedunculo squamato pluries breviore, foliis oblongis horizontalibus subundulatis obtusis, racemo denso paucifloro, bracteis membranaceis canaliculatis ovario cuniculato æqualibus, sepalis petalisque linearibus acutis patentissimis, labelli trilobi basi bicallosi laciniis lateralibus subrotundo-rhomboideis intermedio lineari spathulato acuminato convexo triplò longiore, columnæ cucullo fimbriato.

A native of Guayana, where it was found by Mr. Schomburgk, who sent it to Messrs. Loddiges. This species has white flowers closely arranged at the end of a flower-stem two feet long; and the latter when old produces young plants at almost every joint; a curious habit which proves that the leaves of plants in whatever form they may be, whether true leaves, scales of the stem, bracts or otherwise, have a bud, either latent or manifest, in their axil, which buds are capable of being stimulated into growth under circumstances which vary in different species. The flowers have no smell.

28. MAXILLĀRĬĂ? *Brocklehurstiānă;* foliis solitariis oblongo-lanceolatis petiolatis plicatis scapo multifloro brevioribus, sepalis patentibus oblongis inferioribus paulo connatis, petalis angustioribus basi angustatis, labello membranaceo tripartito: laciniis lateralibus linearibus acuminatis reflexis intermediâ ovato-triangulari subhastato, columnâ basi infundibulari depressâ.

This is a charming plant, imported from Rio Janeiro by T. Brocklehurst, Esq. of the Fence, near Macclesfield. It has a scape a foot and a half high, terminated by several rich cinnamon-brown spotted flowers, more than two inches in diameter, and deliciously sweet. It has the habit of *M. Warreana,* and is one of the finest species of the genus. It may indeed be doubted whether it really belongs to Maxillaria, and characters may doubtless be found to separate it. I am however averse to making genera in the Maxillaridous group of Vandeæ, until a larger number shall have been examined in a living state.

. RĪVĔĂ *tiliæfŏlĭă.* Choisy Convolv. orient. p. 25.

This large half shrubby climber, from Ceylon, has lately flowered in the garden of His Grace the Duke of Northumberland at Syon. It appears to be a native of various parts of the world, for M. Choisy names not only the continent and islands of India, but also the Isle of France, Cape of Good Hope, the West Indies, and Peru, as stations from which specimens of it have been brought. It has leaves much like those of the Lime Tree in form, but thinner. Its flowers are very large, light purple, and single in the axils of the leaves. It is perhaps too strong a twiner for trellis cultivation, but is an ornamental plant where there is room for it to spread. It is the *Convolvulus tiliæfolius* of some botanists, the *Ipomœa tiliæfolia* of others, and the *C. gangeticus* of Roxburgh, who speaks of it as an inhabitant of the banks of the Ganges, where it blossoms in the cool season, when its extended branches and numerous very large bright pink-coloured flowers are highly ornamental.

30. ACĂCĬĂ *bĭflōră.* R. Brown hort. Kew. 5. 463. DeCand. Prodr. 2. 449.

A pretty little greenhouse shrub, with small axillary heads of yellow flowers smelling like Hawthorn. It was raised by Messrs. Lowe and Co. from Swan River seeds. The false-leaves have a very unusual form; they may be described as wedges, with one of the angles mucronate and more taper-pointed than the other, and with the midrib carried into the longer angle, the effect of which is to give these parts a singularly oblique appearance, and to make them look hunch-backed.

31. STANHŌPĔĂ *aūrĕă.* G. Loddiges.

Imagine a plant whose flowers have the size of *S. insignis*, the form of *S. venusta*, the smell of *S. oculata*, the colour of *Maxillaria aromatica*, and are arranged in a spike two feet long, and the reader will have a tolerably distinct conception of this beautiful thing, which Messrs. Loddiges received from Mr. Bateman, who obtained it from Guatemala. It has the two dark spots of *Stanhopea oculata*, but they are in some manner lost in the flood of yellow that surrounds them.

32. VĀNDĂ *violācĕă;* foliis canaliculatis obliquè abscissis rotundatis, racemis multifloris densis pedunculatis, sepalis obovato-oblongis obtusis planis incurvis, petalis multò angustioribus, labello oblongo apiculato plano: venis 5 crassis elevatis, sacco intus pubescente.

A very pretty epiphyte, sent from Manilla to Messrs. Loddiges by Mr. Cuming. The flowers are in short racemes, rather large, with an ivory white ground spotted with light violet; of the latter colour there is one large blotch within the extremity of each sepal and petal, and a few small dots are scattered over their surface; the lip is wholly violet. The flowers have a faint and rather disagreeable smell.

33. ONCĪDĬŪM *macranthērūm.* Hooker in Bot. Mag. t. 3845.

This little plant possesses no beauty, even when represented upon paper. It is either a bad specimen of *Leochilus oncidioides* of Knowles and Westcott, or a species so nearly allied that I am not at present able to point out the difference between them. With *Oncidium carinatum* and another species or two, it forms a group readily known from Oncidium proper, by the large anther, the two-armed column, and some peculiarities in the lip. If it should be eventually separated from Oncidium, which seems probable, the name of Leochilus, although not very appropriate, must be retained for it.

34. BEGŌNĬĂ *punctātă;* rhizomate repente; foliis cordatis, septemfido-lobatis, margine inæqualiter sinuato-dentatis, setoso-ciliatis, utrinque sparsim pilosis, supra saturate-viridibus, subtus pallidioribus, versus marginem rubescentibus; petiolis longitudinaliter sulcato-striatis, patentim pilosis, apice annulatim purpureo-barbatis; perigonii foliolis 2, roseis, extus coccineo-punctatis; fructu trialato, coccineo-punctato; alis rotundatis, altera maxima, rosea. *Link, Klotzch & Otto, ic. t. 7.*

This plant belongs to the division of Begonia, known by the unequal wings of the seed-vessel, and having perennial creeping rootstocks. The leaves are obliquely heart-shaped, with seven deeply cut lobes; the under and upper surface are both green, slightly red towards their margins. The flowers are rose-coloured, with scarlet dots at the base of the petals. The species belongs to the genus *Eupetalum* of Lindley. (Bot. Reg. t. 1757.) It germinated freely at Berlin, in the earth with which it was brought from Mexico. It requires a rich soil, formed of sand and good mould, with a layer of little stones, or coarse gravel underneath for drainage. It blossoms beautifully in the spring, and sometimes it matures its seed. It is easily propagated by means of its creeping fleshy rootstock. It should be grown in the shade, in a temperature from 58° to 64°. *Klotzsch.*

35. ASTEROTRĬCHĬŌN *sidoīdĕs;* foliis petiolatis, lanceolatis, acuminatis, serratis, supra rugulosis, læteviridibus, pube stellato-furfuracea sordide albida sparsim subtus ramisque densissime obductis ; calycibus quinquefidis, campanulatis, albido-viridibus, basi rubicundis ; petalis albidis, obovatis, unguiculatis, integris, basi inter se et cum tubo stamineo coalitis, parce pubescentibus ; filamentis stylisque candidis, antheris luteis. *Link, Klotzch & Otto, ic. t.* 8.

This plant is referred to a new genus of Malvaceæ, founded upon Sir W. Hooker's *Plagianthus sidoides* with which *Asterotrichion sidoïdes* is identical. The following is the character given by Dr. Klotzsch to the genus Asterotrichion.

ASTEROTRICHION. An dioica? Calyx monophyllus, campanulatus, quinquefidus, nudus, in fundo foveolis quinque nectariferis vestitus. Petala quinque, unguiculata, ad basin subcoalita, calycis laciniis alterna. Stamina decem quindecimve, fertilia, inæquilonga, hypogyna ; filamentis in tubum coalitis, superne liberis, exterioribus brevioribus ; antheris unilocularibus, reniformibus, rima transversali dehiscentibus. Ovarium biloculare, loculis uniovulatis. Ovula pendula, semianatropa. Styli 2, clavati, inclusi. Stigmata incrassata, truncata. Fructus? ———— Frutex Novæ Hollandiæ, facie Commersoniæ pube stellato-furfuracea undique obductus ; foliis alternis, serratis, exstipulatis ; floribus racemosis in apice ramulorum axillaribus.

36. ACANTHOSTĀCHY̆S *strobilācĕă;* foliis radicalibus 5, longissimis, leviter incurvis, angustis, crassis, pungentibus, canaliculatis, margine dentato-spinosis, subtus convexis, albido leproso-furfuraceis, basi vaginatis, squamis brevibus foliiformibus vestitis; scapo simplici, longo, furfuraceo-leproso, leviter striato, infra spicam brevem spathis duabus, longis, foliaceis vestito ; bracteis unifloris carnoso-coriaceis, ovatis, acuminatis, recurvis, igneis, ad basin flavidis, margine dentato-spinosis ; perianthii laciniis exterioribus glumaceis, flavidis, interioribus petaloideis, pallide-sulphureis. *Link, Klotzsch & Otto, ic. t.* 9.

A Bromeliaceous plant from the southern parts of Brazil, whence it was first brought by Von Martius, and more lately by Sello. It has a cylindrical stem, thickened at its base, from 2 to 3 inches long. Its leaves are long and acute, their margins armed with small spines ; slightly recurved and covered with a fine white scurf. The bracts are bright red, fleshy, recurved. The flowers are a bright sulphur colour.

The plant has blossomed twice in the Botanic Garden at Berlin in the months of June and July in a hot-house, with a temperature of from 58° to 60°. A soil composed of equal parts of sand and decayed wood or leaves seems most agreeable to it. It may be propagated by suckers struck in a hotbed. This genus Acanthostachys is founded upon the *Hohenbergia strobilacea* of Schultes, and is characterized as follows by Dr. Klotzsch:

ACANTHOSTACHYS. Perigonii superioris sexpartiti laciniæ exteriores calycinæ, compresso-trigonæ, posticæ complicatæ, carinatæ, antica dorso convexa; interiores petaloideæ, exterioribus longiores, supra basin nudæ, squamosæ aut bicristatæ, demum spiraliter-contortæ. Stamina 6, exteriora epigyna, interiora epipetala; filamenta linearia; antheræ erectæ, lineares, biloculares, intus longitudinaliter dehiscentes; pollinis granula ovalia. Ovarium inferum, triloculare, compresso-trigonum, loculis biovulatis. Ovula elliptica, apice tuberculata, e placentis geminis, divaricatis, cruciformibus, ex apice anguli centralis loculorum horizontalia, anatropa. Stylus filiformis. Stigma infundibuliformi-trilobum minutissime fimbriatum. Bacca arida, perigonii laciniis coronata, compresso-triquetra, trilocularis, apice convexo-inflata. Semina in loculis bina, ex apice loculorum pendula, ovoidea, compressa; testa membranacea, atra. Herbæ brasilienses; foliis radicalibus coriaceis, carinatis, spinoso-dentatis, scapis simplicibus aut ramosis; floribus densè spicatis, singulis spathaceo-bracteatis.

37. SISYRĪNCHĬŪM *majālĕ;* radice carnoso-fasciculatâ; scapo compresso, gracili, subsimplici, superne striato, foliis subduplo breviore; foliis lineari-ensiformibus, conduplicato-vaginantibus, longitudinaliter striatis, margine superiore dorsoque evanescente scabris, acuminatis; spathis multifloris; bracteis membranaceis, bifidis, albidis; perigonii foliolis aureis, epunctatis aut versus basin unipunctatis, elongato-obovatis apice obsolete-dentatis, retusis, mucronatis; staminibus stylisque flavis; filamentis basi monadelphis, inferne piloso-glandulosis; stigmatibus filiformibus; germine piloso-glanduloso. *Link, Klotzsch & Otto, ic. t.* 10.

The seeds of this plant were received from Valparaiso by Hunneman, in the year 1832. It has a perennial fleshy fasciculated root, an herbaceous simple forked stem, from one to one foot and a half high, surmounted by 6 or 8 yellow flowers, which develope themselves one after another. It has been cultivated in an almost open greenhouse at Berlin. It flowers in February and March. When it has blossomed the stem and leaves decay: it may then be left to dry, and in autumn it may be placed in fresh earth in a cool greenhouse. It may be propagated by division of the roots, or by seed.

38. SPIRĀNTHĔS *Lindleyāna.* Link, Klotzsch & Otto, ic. t. 11.

This is a variety of *S. elata*, with the leaves spotted with light glaucous green.

39. MARIĀNTHŬS *cœruleo-punctatus;* ramis pubescentibus, filiformibus, longissimis volubilibus; foliis brevi-petiolatis evanescente-villosiusculis, inferioribus spathulatis, brevissime-acutis grosse serrato-dentatis aut pinnatisectis, superioribus oblongis, utrinque acutis, integerrimis; pedunculis solitariis pubescentibus, in apice ramulorum oppositifoliis, corymbosis, 7-19-floris; floribus pallide-violaceis; foliolis calycis pilosis; corollæ petalis oblongis, acutissimis, 3 superioribus medio expallentibus, cœruleo-punctatis; antheris cœruleis. *Link, Klotzsch & Otto, ic. t.* 12.

The seed of this plant was received from Van Diemen's Land in 1839, with the name of Beautiful sweet-scented creeper. It has pale violet flowers, with deep blue dots and blue anthers, arranged in corymbs. It requires in the winter a temperature of from 45° to 50° but in summer may be treated as most New Holland plants. It blossoms in May and June, and may be increased by cuttings placed under a bell-glass.

40. SĀLVĬĂ *tubĭfĕră.* Cavanilles Ic. 1. 23. t. 25. Bentham Labiat. 298. (S. *longiflora.* Willd. Sp. pl. 1. 141.)

This charming plant has been lately flowered in the garden of the Horticultural Society, who received it from Mexico, where it was met with by Mr. Hartweg. It has a stem about 3 feet high, ovate, thin, long-stalked leaves, and long racemes of slender purple flowers, drooping gracefully from the ends of the branches. The flowers are much the colour of some purple Acanthaceous plants, such as Justicia elegans, but they are perhaps more vivid. It is one of the best Salvias we yet have. It has flowered in a warm greenhouse, but is probably as hardy as others.

41. BURLINGTŌNĬĂ *rĭgĭdă.* Sertum Orchidaceum, t. 34.

One of the many fine plants inhabiting the woods of Brazil, our knowledge of which was confined to dried specimens until the enterprise of British cultivators succeeded in transferring it to our gardens. It has been at length procured in a living state by the Messrs. Loddiges, in whose stove it flowered some months ago. It is a beautiful species, with a habit unlike that of any other genus hitherto discovered. It first forms a tuft of two or three leaves, of an ovate lanceolate form and rigid texture, whose petiole is thin, folded together in an equitant manner, and articulated with the lamina. Subsequently in the middle of these leaves appears a short branch, in the form of a pseudo-bulb, oval, thin, and furrowed, on whose apex arise one, or occasionally two leaves, like the first in form, but without the equitant petiole. The plant having advanced to this point, and succeeded in establishing itself on the branch of a tree by means of numerous fine rather stiff roots, it next produces, from the axil of one of the lower leaves, a rigid stem, slender and as thick as a crow's quill, which rises erect into the air, forming two or three membranous sheaths upon its surface, and ceasing to grow as soon as it has acquired the length of eight or ten inches. At its apex it develops just such a tuft of leaves as that from which it sprang; and thus the plant continues to live till the period of flowering has arrived. At that time it emits from the axils of one of its lower leaves, a flowering stem or scape, six or eight inches long, having a few distant membranous scales ensheathing it, and bearing at the apex a very short umbel-like raceme of several large drooping white flowers, delicately tinged with pink. When the column is deprived of all the parts that surrounded it, and so placed as to be seen in front, it bears far more resemblance to a bat's head and neck, than to any part of a flower. Travellers in Brazil report this species to have a delicious scent of violets, but it was not perceived in Messrs. Loddiges' specimen.

SALEP ROOTS.

About two years ago there was read before the Linnean Society an account of the structure of the roots of the Common Orchis. In that paper the author showed that two opinions exist as to the nature of the matter the roots contain; that Berzelius asserts them to consist principally of vegetable mucus; while Payen refers their contents to starch. In investigating this point the author ascertained, firstly, that Berzelius was right—and, secondly, that the mucilaginous matter was of a horny substance, of the nature of bassorin, and deposited in large angular nodules. He describes them as being easily separated from the tissue in which they are imbedded, resembling pebbles of rock crystal, tough like horn, not to be torn, crackling between the teeth like fragments of caoutchouc, and seeming to be homogeneous. Iodine did not stain them blue, but claret-coloured, especially the alcholic solution. By the process of charring they were discovered to consist of extremely minute transparent cells, filled with a substance of the same refractive power as themselves, on which account they appear to be homogeneous.

The late Professor Meyen, of Berlin, has criticised this account in his last report upon the progress of physiological Botany. After reading his remarks with all the attention we are able to give them, and re-examining the roots of both Salep and other Orchises, we can only say that we adhere to every particular contained in the paper in the Linnean Transactions. The nodules are not starch, but Bassorine; there is no recorded case of identity between those nodules and other internal secretions, and the proof of their consisting of minute transparent cells is, we are still of opinion, not only a new but highly important fact. We never said it was inexplicable upon any known principle; on the contrary, the reference to the existence of cytoblasts upon the sides of the minute cells sufficiently indicated the explanation we should have given of the structure had we thought it desirable to do so: but the paper was a mere record of an extremely curious fact, and not a dissertation or a physiological speculation.

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42. LÆLĬĂ *acumināta*; pseudo-bulbis ovatis compressis rugosis, foliis solitariis emarginatis, scapo bifloro, sepalis linearibus petalisque lanceolatis undulatis acuminatis, labelli lobis lateralibus rotundatis intermedio lanceolato undulato acuminato.

Found in Guatemala by Mr. Hartweg, and distributed by the Horticultural Society. It flowered at the same time in the garden at Chiswick and at Carclew, in the collection of Sir C. Lemon. It is a curious Orchidaceous plant, very near L. rubescens, from which it differs in the scape being two-flowered not racemose, in the sepals being acuminate, and the flowers at least twice as large. It is a pretty species, with pale blush flowers. What seems to be a variety, from Costarica, no. 620, has produced a pair of pale violet blossoms with Messrs. Loddiges.

43. POLYSTĂCHЎĂ *reflēxă;* pseudo-bulbis conicis subcompressis annulatis, foliis . . . . , scapo subclavato apice racemoso, sepalis expansis sub apice emarginato mucronatis lateralibus maximis, labello pandurato medio crenulato genuflexo pulvinato apice dilatato membranaceo.

This singular Orchidaceous plant is a native of Sierra Leone, where it was found by Mr. Whitfield. It flowered in February in the garden of Chiswick House, under the care of Mr. Edmunds. Its leaves are at present unknown. The flowers are white with a faint tinge of pink, and spread flat, so as to look at first sight very unlike those of a Polystachya. The lip is slightly tinged with green, abruptly bent back in the middle, and below the bend furnished with a bright yellow cushion of the most curious jointed hairs, which are arranged so compactly that the whole seem to form one solid mass.

44. CĪTRŬS *deliciōsă;* arbuscula spinosa, foliis lanceolatis utrinque attenuatis subdentatis, petiolis linearibus; fructu compresso (2. poll. diametr.) pulpa sapidissima corticeque fulvo-aurantiaco. *Ten. Ind. Seminum*, 1840.

This is said to be a new species of Orange, allied to the Citrus nobilis; or Mandarin orange, with which it is confounded in Italian gardens. It is stated to differ in being a spiny plant, with somewhat toothed leaves, and a small fruit not more than two inches in diameter, by no means red either inside or outside. It is supposed to come from China; flowers in April, and ripens the fruit in December.

45. CONVŌLVŬLŬS *verrūcĭpēs;* caule volubili herbaceo foliis cordatis acuminatis, inferioribus integerrimis, superioribus basi trilobis vel subangulatis repandis; pedunculis unifloris angulatis verrucosis (8-10 lin. long.) calycinis foliolis ovali-oblongis (2 lin. lat. 4. lin. long.) corollis albis calyce vix duplo longioribus; capsulis hirsutis trilocularibus trispermis. *Ten. Index Seminum*, 1840.

An annual related to C. sibiricus, flowering in July. Its native country is unknown to Professor Tenore, who says nothing more about it.

46. ĔRĬĂ *bractēscēns* (Tonsæ); pseudobulbis brevibus ovatis apice subdiphyllis, foliis oblongis undulatis racemis subæqualibus, bracteis margine revolutis superioribus linearibus reflexis, racemis erectis, labelli trilobi

lamellis duabus abbreviatis intermediâ productâ lobo medio truncato rugoso obtusè apiculato.

A Sincapore Orchidaceous plant, which has flowered in the collection of Messrs. Loddiges, (no. 214). It has erect racemes of delicate straw-coloured flowers, and is readily distinguished by its large bracts. It is nearly allied to *E. flavescens.* The same plant has been found in Burma by Mr. Griffith, from whence I have specimens, no. 1055. It is rather pretty, but not strikingly handsome.

47. EURY̆BĬĂ *chrysŏtry̆chă;* fruticosa; foliis alternis breviter petiolatis ovato-oblongis subdentato-repandis obtusiusculis, supra viridibus scabris, subtus mollissimis, ramulisque junioribus pilis aureis sericeo-tomentosis, pedunculis axillaribus foliis duplo longioribus, monocephalis. *Ten. Index Seminum,* 1840.

A new shrub, evidently from New Holland, although Professor Tenore does not know the exact locality. He gives no further information concerning it.

48. HETERŌPTĔRĬS *undulātă;* scandens, glaberrima; foliis oppositis angusto-lanceolatis utrinque attenuatis integerrimis undulatis, petiolis brevibus plerumque eglandulosis; corymbis paucifloris terminalibus; calycibus glandulosis; petalis (luteis) undulatis, stylis simplicibus; carpellis villosis. *Tenore Index Seminum,* 1840.

This plant has been raised in the Royal Garden of Naples, from seeds received from M. Bonpland, from Buenos Ayres (?) so late as 1838. It is stated to flower in July, and to differ from all the other species of the genus in having linear-lanceolate undulated leaves. No doubt a greenhouse twiner. It should be compared with *Banisteria tenuis.*

49. CYRTOPŎDĬŪM *Andersōnī.* Botanical Register, ante t. 8.

Upon the subject of this plant I have received the following note from Mr. Appleby, gardener to Thomas Brocklehurst, Esq. M.P., of the Fence, near Macclesfield.

"In the Botanical Register for this month is an observation that the genus Cyrtopodium does not flower freely in the Orchidaceous houses near London. As I have been successful in blooming several of that genus last season, and they are now showing flowers again, I send you the particulars of the method by which I have succeeded. As soon as I perceive the buds springing at the bottom of the pseudo-bulbs, I take the plants and carefully shake off all the old soil, and cut off all the decayed roots; I then pot them in large pots well drained, in a compost of turfy loam chopped into pieces about the size of pigeon eggs, and peaty turf broken in the same manner, and leaf-mould about half rotten, in equal parts; to which I add about an eighth of bones, also broken into small pieces; I mix these all well together, and place the plants as near as possible level with the rims of the pots, and finish by giving a good watering to settle the compost. The plants are put in the warmest part of the house, and watered very moderately at first, increasing the quantity as the plants advance in growth until the leaves are fully developed, when I give them manure water once a week to encourage the production of strong pseudo-bulbs, without which it is in vain to look for flowers. In this I succeeded to my satisfaction; and last year had the pleasure to perceive the flower-stems appearing at the same time as the bulb shoots. I had flower-stems five feet high, with numerous side branches, making a bundle of flower-stems on one shoot more than eighteen inches diameter. They are coming up this year equally strong. As soon as the pseudo-bulbs are perfected I gradually reduce the water, and when they are at rest I give them no more. To induce more perfect quiescence I have them removed to a cool dry house, the average temperature of which is about 55°. The essentials of this method are, to use a rather rich but open compost, to give plenty of water during growth, and a season of complete rest. Those who attend to all this need not fear flowering Cyrtopodiums. We have now in flower here Dendrobium nobile, a fine specimen with spikes of ten and twelve blossoms each, D. cœrulescens, Cyrtochilum maculatum, C. Bictoniense, Epidendrum aurantiacum, and a fine var. Epidendrum ciliare, var. latifolium, E. capitatum, E. nutans, E. nocturnum, Leptotes bicolor, minor and major, Cymbidium sinense, Brassavola nodosa, B. angustata, B. tuberculata, Oncidium Cebolleta, and a var. O. ampliatum, Brassia caudata, Gongoras several species, Lissochilus parviflorus, Bletias, Cypripediums, &c. &c. altogether making our Orchidaceous houses very gay, forming a strange yet pleasant contrast to the savage winter now howling around us."

50. DENDRŌBĬŪM *dīscŏlŏr;* caulibus erectis fusiformibus, foliis oblongis obtusè emarginatis distichis, racemo terminali multifloro, sepalis petalisque lineari-oblongis patulis crispis, labelli crenulati lobis lateralibus acutis intermedio lanceolato acuto : lamellis 5 undulatis.

Although obtained by Messrs. Loddiges from the Botanical Garden at Buitenzorg, I cannot recognize this species among those mentioned by Dr. Blume. It has a most singular appearance, with stout erect stems four feet high, swollen in the middle, and terminal racemes of about 16 dingy yellowish brown flowers, as much curled and wavy as those of a Gloriosa. The lip has the same dull dirty colour, except along the middle, where it is decorated with five deep wavy plates of a bright violet. It is of the same section as the sweet-scented Dendrobium crumenatum, now so rare in our gardens, if it exist at all.

51. LINĀRĬĂ *glandulĭfĕră;* annua, villoso-viscosa, pilis glanduliferis undique tecta, caulibus debilibus, foliis oppositis ovato-subrotundis, inferioribus petiolatis interdum vage dentatis obtusis, superioribus sessilibus integerrimis, floribus axillaribus solitariis subsessilibus, calycinis segmentis ovatis; corollis exiguiis, labio superiore atropurpureo, inferiore palatoque flavo, calcare incurvo albo. *Tenore Index Seminum,* 1840.

An annual with small purple flowers, sent from England to Professor Tenore by Mr. Fox Strangways. It is said to be allied to *Linaria dealbata* and *lanigera;* but it differs from the first in its sepals being ovate and obtuse, not lanceolate and acute, and also in its much smaller leaves and in the colour of the flowers. The sessile, not long-stalked, flowers divide it from L. lanigera.

52. SEVERĪNĬĂ *buxifŏlĭă;* arbuscula spinosa; foliis emarginatis perennantibus ovali-oblongis subsessilibus integerrimis parallele venosis obtusis; floribus axillaribus fasciculatis vel solitariis *Tenore Ind. Seminum,* 1840.

Under this name Professor Tenore distinguishes the *Citrus buxifolia* of the gardens, which he regards as a new genus, the character of which he states as follows :

SEVERINIA. Calix quinquedentatus, corolla pentapetala, stamina decem pentadynamica, antheræ semilunares biloculares, pistillum unicum stigma simplex. Acinus dispermus.

53. DENDRŌBĬŪM *elongātŭm.* (Eudendrobium, foliis planis, floribus racemosis, labello trilobo.) *A. Cunningh. in Bot. Reg.* 1839. *misc.* 33.

This plant has flowered with Messrs. Loddiges. It proves to have erect stems about a foot and a half high, at the end of which grow about four lanceolate leaves, from the midst of which springs a raceme of yellowish flowers spotted with red. If they would but open, the species would be rather pretty, but they seem unwilling or unable to expand.

54. CŒLŎGȲNĒ *cristātă.* Gen. & Species of Orchidaceous Plants, p. 39.

A most beautiful species, fragrant, free-flowering, and having large blossoms of the purest white, except the lip, which in its centre is decorated with bright yellow fringes and plates. It has recently flowered with George Barker, Esq. of Birmingham, and was exhibited at the last meeting of the Horticultural Society in Regent Street, where it gained a Knightian medal.

55. ŌXĂLĬS *fruticōsă.* DeCand. prodr. 1. 690.

In this country we know little of the shrubby species of Woodsorrel found in South America, where there are many of very singular appearance. In the collection of His Grace the Duke of Northumberland one has lately flowered, which proved to be the *O. fruticosa* of Raddi, mentioned in De Candolle's Prodromus. It is exceedingly remarkable in having the office of leaves performed by the leafstalks, which, for this purpose, become thin, broad, and lance-shaped, while the leaflets either drop off or only occur upon the leafstalks here and there. It has small, deep yellow, axillary flowers. It had been sent to Syon from Rio Janeiro by Captain Herbert.

56. ONCĪDĬŪM *longifŏlĭūm;* (Cebolletæ) foliis teretibus longissimis diffusis, scapo erecto densè paniculato, sepalis petalisque apiculatis obtusis concavis, labelli lobis lateralibus obliquè ovatis intermedio obovato bifido minoribus, tuberculo basi depresso anticè tricorni glabro, columnæ alis brevibus rotundatis.

Although this fine species has the foliage of O. Cebolleta, it is really very different, forming dense panicles, three feet long, of very large and showy yellow and brown flowers. Its leaves are often three feet long, and hang down or spread upon the ground instead of standing stiff and erect, as in the allied species, several of which are as yet but little known.

It has been imported abundantly by the Horticultural Society from Mexico, and has flowered both in their garden and with Messrs. Loddiges. It is very handsome, and well worth growing.

57. ONCĪDĬŪM *Wrāyǣ;* pseudobulbis ovatis compressis sulcatis, foliis 2 terminalibus lineari-lanceolatis, scapo radicali elongato ramoso, floribus paniculatis, petalis sepalisque conformibus ovato-acuminatis patentibus ferrugineo maculatis, labello unicolori latè cuneato-obovato 3-lobo cristato, cristâ elevatâ acutè trilobâ. *Botanical Magazine, t.* 3854.

A Mexican species introduced by Mrs. Wray of Oakfield, and very handsome. This would seem to be new, but is evidently very near O. reflexum, Wentworthianum and Tayleurii. The figure in the Botanical Magazine, by which alone I know it, is so evidently inaccurate in those minute but important details, a correct knowledge of which is indispensable in this large and difficult genus, that it is not easy to place any confidence in it.

58. DENDROCHĪLŪM *glumācĕūm;* spicâ conicâ elongatâ apice nutante, bracteis imbricatis distichis glumaceis, sepalis petalisque acuminatis, columnâ apice pectinatâ dentibus lateralibus æquali, labelli trilobi basi bilamellati lobis lateralibus abbreviatis inflexis acutis intermedio orbiculari.

A singular Orchidaceous plant looking very much, both in foliage and flowers, like a grass. Indeed, before the latter expand, and while they are still covered over by the bracts, one would not suspect the plant to be any thing else. Mr. Cumming found it in the Philippines, and Messrs. Loddiges have flowered it. The blossoms are a pale watery green.

59. MAXILLĀRĬĂ *cāndĭdă* (G. Loddiges in litt.); pedunculis radicalibus unifloris, sepalis petalisque linearibus acuminatis, labello oblongo obsoletè trilobo medio furfuraceo ad incisuram unicalloso: lobo medio ovato obtuso denticulato.

A little Brazilian plant of small beauty. The flowers are white and about as large as those of M. ochroleuca. It is distinguished readily by the whole inside of the lip being covered with a fine deciduous mealiness. It flowered at Hackney with Messrs. Loddiges.

60. COLUMNĒĂ *Schiedeānă.* Schlecht. in Linnæa, 8. 249.

A specimen of what is supposed to be this plant was exhibited by Mr. Rogers at the last meeting of the Horticultural Society in Regent Street. It had been received from Mexico, and bore numerous long yellow and brown flowers all along its stems, which root at the joints, and appear to have thus a power of attaching themselves to other plants like Ivy. It has handsome deep green leaves, stained with crimson underneath, and is altogether a very showy plant. It probably requires the temperature of the stove when growing: but may possibly succeed in a cooler situation. It will multiply easily, and may therefore be expected to become common very soon.

61. ACĂCIA *urophȳllă;* glabra, spinis stipularibus subulatis, phyllodiis petiolatis lanceolatis v. ovato-lanceolatis subfalcatis valde obliquis longe acuminatis inæqualiter 2-3-nervis margine subsinuatis et hinc ad apicem petioli glandulam scutelliformea ferentibus, florum capitulis globosis paucifloris pedunculatis solitariis v. in racemo laxo apice foliato dispositis, floribus tetrameris. *Bentham mss.*

Very readily distinguished from all other capitate phyllodineous Acacias with stipulary spines by the size of the leaves, which are from three to six inches long, including a long fine tapering point. The peduncles are short, and the flowers in each head but few, and not conspicuous; but the foliage is elegant, and the flowers very fragrant. Raised from Swan River seeds by Messrs. Lucombe, Pince, and Co. of Exeter.

KOORDISTAN OAKS.

I hasten to correct an error in which I inadvertently fell in speaking of the oaks of Koordistan, in a late volume of the Register. The following extract from a letter from Mr. Brant, dated July 15, 1840, will shew that the curious discoveries which I had attributed to that gentleman, belong in fact to another traveller.

"The specimens of plants were not procured nor dried by me, but by my medical attendant, Dr. Edward Dalzell Dickson, now settled at Constantinople, and I have to request that if any new species has been discovered, and any new name is to be given, that the plant bear the name of him who was the real discoverer, and not of one who had no other merit, than having forwarded the plants to England."

On the extracarpellary attachment of the Seeds in some Natural Orders. Read before the Imperial Society of Naturalists of Moscow by the Second Secretary J. Schykofsky. (Bulletin de la Soc. Imp. des Naturalistes de Moscou, 1837. No. V.*)

"Ye shall know them by their fruits."

Certainly these sacred words were pronounced in an allegorical sense and for a moral purpose, but the continuation of the same verse shews us that the fruit of a plant must necessarily serve as the expression of its existence. *Do men gather grapes of thorns or figs of thistles?* So that we also as enquirers into Nature, must be guided in a strict sense by this principle laid down by our Saviour.

In our times the importance of the fruit in the systematic arrangement of plants in natural groups, called families or orders, is undisputed. In the fruit and seed indeed is expressed, in a condensed form, the whole being of any plant. In the vegetable germ exists the soul as it were of every race, of every variety of the vegetable life or that creative idea of Plato, by means of which, from one and to all appearance the same vegetable atom, from one elementary cellular tissue, in which our observation, even when assisted by the best microscope, cannot detect the slightest differences, there proceeds in one instance a rosebud, in another the fragrant lily of the valley.

And if the experienced eye of the observer can often recognise the species and the form of any plant from the mere inspection of a common leaf-bud,† or even of a single leaf, so will he much more readily and correctly ascertain it by the organs of production, the flower, the fruit, and the seeds. The cause of this it is well known lies in this, that the organs of re-production, being nothing else than the same organs of vegetation, by the superior quality or more perfect elaboration of the juices of which they are composed, as well as by their closer and more compressed position, contain much more definite outlines of their form.

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* The observations of Schleiden, and the arguments he employs to prove that the seeds are very often, if not always, bodies produced by the axis of a branch, having no original communication with the carpels, but merely housed in by them, are now becoming generally known, A brief account of the views of that very original observer is given in my *Introduction to Botany, ed.* 3. *p.* 208, and I entertain no doubt that his theory is true. I am, therefore, sure that the present paper will be read with great interest, as it shews that another observer, much less known than Schleiden, had previously arrived at the same conclusion. But as M. Schykofsky wrote his memoir in the *Russian* language, it has hitherto remained unknown to all Botanists, except such as can read that tongue. For the translation now published I am indebted to the kindness of Mr. Bentham. Let us hope that M. Schykofsky will make his future discoveries known in some language less inaccessible than his own.

† V. Charakteristik der deutschen Holzgewächse in blattlosem zustande von Dr. Jos. Joh. Zuccarini, Munchen, 1829-1831.

Who among Naturalists can read without heartfelt pleasure in the life of Bernard de Jussieu, whose modesty should ever be an example to us, that amusing anecdote which attests the peculiar practical knowledge he had of all the species forming the flora of the environs of Paris, even in their minutest peculiarities.*

On this characteristic constancy in the form of seeds is founded, as is well known, one of the most important duties of the directors of botanical gardens—that of verifying the names and labels attached to the seeds sent out on exchange to other botanical gardens. It is an agreeable duty to me to mention here, by the way, the reputation which the Directors of our own National Botanical Gardens enjoy in Europe, in this respect: the Councillor of State, Theodor Bogdanovitch Fischer, of the Imperial St. Petersburgh Garden, and the esteemed Professor, Councillor of State, and Chevalier, Charles Theodorovitch Ledebur, of the Dorpat University Garden, formerly my superior.

It is extraordinary that the immortal author of the sexual system should have turned his attention so little to the fruit and seeds; directing it so much more to the flowering organs. Was it not that he had derived from these the principles of his sexual system, to which he had become attached, as the foundation, in a manner, of his own celebrity? This is the more surprising, as he could not but be aware of how much the structure of the fruit and seed had served Cesalpin, Tournefort, and his friend and contemporary, Bernard de Jussieu, in the bringing plants together into natural families, which, as is known, Linnæus himself considered to be the crown of bota-

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* Some of his pupils, wild young Parisians, wishing to amuse themselves in their botanical excursions, made up artificial flowers compounded from various plants. The respected Professor recognised immediately on the calyx of one flower the petals of such another one, the stamens of such a third one, &c. The same kind of knowledge distinguished the Student Ruppius who published a Flora of Jena, in the year 1718.

nical labours. "Diù et ego circa methodum naturalem inveniendam laboravi, bene multa quæ adderem obtinui, perficere non potui, continuaturus dum vixero, interim quæ novi proponam; qui paucas quæ restant bene absolvit plantas, omnibus magnus erit Apollo." Classes Pl. 1747, p. 486. Also, in another place: "Methodus naturalis primus et ultimus finis Botanices est et erit." Phil. Bot.

The indefatigable Gaertner, to whose immortal work, the produce of twenty years' labour, the celebrated Parisian Academy adjudged the second place amongst all modern works promoting the advancement of science,—Gaertner, feeling the importance of Carpology, thus speaks of Linnæus, it is true with some degree of jealous reproach:—"Qui (Linnæus) non solum disertis verbis declaravit florem longe præferri debere fructui in determinandis generibus, sed qui etiam ad tenorem hujus falsi dogmatis, toties genera sua alienissimis adulteravit speciebus, qui plurimos suos fructuum characteres, non ex natura, sed ex solis Tournefortii Plumieri Rheedii Commelini &c. iconibus ita hausit, ut simul quoque omnes eorumdem mendas et errores suos fecerit et subinde auxerit; aut qui si tales defuere fontes, fructus sæpe adeo negligenter et quasi ex insomnio descripsit; e. gr. in Coldenia, Eriocaulo, Scoparia, Cephalantho, Nauclea, Trollio, &c. ut ubique luculenta summi sui fructuum contemtus dederit testimonia." (Jos. Gaertn. de fructib. et seminib. Plant. Vol. 2, præfat. p. 4.)

Even in the classical composition of Linnæus, with which he took the greatest pains, in his Philosophia Botanica, we find, for example, comprised under one category of tail-like processes, real processes of the fruit or transformed styles in Pulsatilla, hairs arising from the origin of the seeds in Poplars, hairs of the fruit-bearing peduncle in Typha, and hairs arising from various floral organs in different Gramineæ: Lagurus, Arundo, Saccharum, &c. Who is not acquainted with his error in considering the monospermous capsules of Boragineæ, Labiatæ, &c. as naked seeds?

The celebrated A. L. de Jussieu also, whilst working out his natural system founded on characters taken from all organs, but especially from the fruit and seed, even in his admirable work, the Genera Plantarum, not having yet had in his hands the classical composition of Gaertner, falls into many errors. It is enough to adduce, as an example, the erroneous mixing up of the Polygalæ in the natural family of the Pediculares; to which he attributes collectively a capsular bilocular polyspermous fruit; whereas, in fact, the Polygalæ have two monospermous cells with pendulous seeds, and a habit very different from that of the Pediculares.

Imperfection is the common lot of mortals; and, as stated by the celebrated German botanist, Curtius Sprengel, not long since deceased, to the regret of science—"We should congratulate ourselves when we are able to divest ourselves of one prejudice after another, to cast off one error after another, and thus entertain a hope to be somewhat nearer the truth than those who studied before us."

Deeply penetrated with this truth, M. de Jussieu, making use of Gaertner and of his own genius, prosecuted his investigations of nature, and in numerous subsequent partial and separate memoirs on various families of plants, showed, for our instruction, that mistakes in the search after truth should not stop us, but encourage us to fresh efforts.

Lastly, with all the indefatigable labours of Gaertner—with all the immensity in number and the accuracy of his observations—the numerous mistakes of Gaertner himself, of the celebrated investigator of fruits, Louis Richard, and of the admirable observer, Mirbel, prove to the naturalist, that in order to demonstrate the structure of the fruit, it is not enough merely to analyse mechanically and to describe that organ.

Unquestionably the first botanist of the day, the exemplary lover and favourite of the scientia amabilis, the Genevese Professor, A. P. DeCandolle, first showed the advantage of combining practical observation with the theory derived from the more or less general laws of organization, and since then his views of the structure of the fruit, enforced by the profound observations of the immortal Goethe, have become the prevalent ones.*

But on the admission of DeCandolle himself, "we, always inclining to extremes, are often carried off so far by our speculations, that at length we obstinately follow that which is contrary to the fact." And in fact it is only the authority of the German genius that could have made DeCandolle overlook the doctrine of Link, Richard, and some others, on the attachment of the seeds in the fruit of phænogamous plants. And now in the excellent, though it is true, elementary work, published in the last year (1835) by the son and pupil of our great master, Alphonse DeCandolle, we see the same doctrine of the organization of the carpel, which his father himself has admitted is not sufficient for the explanation of many phenomena. He still says: the carpel consists of a metamorphosed leaf folded in two lengthwise, and from the thickened margins of which proceed the ovules; while afterwards the seeds are formed like the leaf-buds proceeding from the margins of the leaves of the Bryophyllum calycinum Salisb. (Verea pinnata, Spr.)

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* See the Scientific Memoirs of the Imperial University of Moscow, Oct. 1835, p. 403.

It may appear to many almost enigmatical, why DeCandolle, so zealous a searcher after truth, who from his numerous services to science, could not run the least risk of any taint to his fame by the recognition of a fault or of any partial views, should not have taken up Richard, who, in the 6th Brussels edition of his Elémens de Botanique et de Physiologie végétale, 1833, p. 136, says as follows: "Cette réunion, cette soudure des deux bords opposès de la feuille carpellienne se fait constamment au moyen d'un corps intermédiaire composé de tissu cellulaire et de vaisseaux nourriciers, et qui tire son origine de la partie de la tige ou du pedoncule d'on nait le carpelle; c'est sur cette partie seulement, et jamais sur le bord même de la feuille carpellienne que sont attachés les ovules ou rudimens des graines." The cause of this apparent obstinacy of DeCandolle and his whole school, lies, in my opinion, in this, that the party of his adversaries, not resting upon the general laws of organization, nor on data furnished by nature, and not agreeing with the ruling theory as being merely an indeterminate obscure sensation, only repeat, in different words, almost the same thing which Linnæus and his followers had said a century before on the *receptaculum proprium* of the seeds; describing, if I may so express myself, ignorantly, the phenomena they observe, without investigating, so as to render complete, their organographic meaning.

It is to the acute countryman of Linnæus, Agardh, late professor of Botany at Lund, that the honour is due, on the one hand, of having pointed out the errors of DeCandolle's theory, and on the other, of having applied to the flower and to the fruit the general law of vegetable organization; according to which there always appears in the axilla of the leaf a bud or new shoot on which are developed, in their turn, leaves bearing again in their axillæ fresh buds.

Thinking it out of place here to enter into any critical review of the small but acute composition of Agardh, published at Lund in 1828, under the title of Essai de reduire la Physiologie végétale à des Principes fondamentaux, I shall only say, that according to Agardh's theory, *the organ which bears the seeds is the representative of the branch or shoot springing from the axilla of the carpellary leaf.*

Under the guidance of Bacon's rule for the study of science, so especially applicable to the investigations of naturalists—"Malo Academiam ruminantem, quam quæ nova detegit,"—I applied myself, in the years 1831 and 1832, to the investigation of the structure of fruits and seeds. My intention was to ascertain how far facts bore out the theory of the learned Swede, derived merely from the general laws of vegetation, as it were *a priori*, without adducing in support of it a single example taken from the observation of nature.

To my no small satisfaction, I became, from day to day, more and more convinced, both from my own analyses and those of other accurate observers, of the correctness of Agardh's views; and moreover, I saw that all those appearances which speak the most in favour of DeCandolle's theory, can also, without effort or violence, be demonstrated according to the principles laid down by Agardh; for example, the apparent arrangement of the seeds on the two margins of the carpellary leaf at the opening of the pod of Leguminosæ, the frequent recurrence of an even number of ovules in simple polyspermous carpels, or in each cell of compound fruits, &c.; and that on the other hand all those appearances which after DeCandolle's ideas can with difficulty, or as he himself admits, cannot at all be explained—for example, the attachment of the seeds in the fruit of Cruciferæ, the structure of Boragineæ, Ochnaceæ, Labiatæ, &c., become under Agardh's theory, examples for the explanation of the appearance of the fruit of other natural families in the simplest and most satisfactory manner.

Several unpleasant circumstances did not allow me, in the Dissertation which I drew up in 1832, for obtaining the highest degree in the Philosophical faculty of the Imperial University of Dorpat, to state my observations with sufficient detail and with explanatory drawings; so that on my wishing to learn the opinion of the impartial DeCandolle on my composition, he answered me from Vienna on the 8th of April of the following year 1834, " Je ne puis pas vous dire que vous m'ayez converti à votre opinion, mais jè vois très bien qu'on puisse la soutenir et je ne négligerai pas de l'examiner avec attention." It would be difficult to express in words the impatience with which, a twelvemonth after this answer of DeCandolle's, I hastened to avail myself of the leave obtained from the kindness of my superiors to visit Geneva, to hear from his own mouth the judgment of my hitherto absent master, to see the result of the promised further investigations on this subject, &c. But the labours of so original an author in descriptive botany as DeCandolle, from whose pen all contemporary botanists await with so much impatience the fifth and following volumes of the Prodromus—these labours do not leave him a moment of leisure either for microscopical investigations, or even for simple observations in the botanical gardens, the direction of which his son, Professor Alphonse DeCandolle has now undertaken. Nevertheless DeCandolle, as amiable in personal intercourse as convincing in his writings, on my shewing him some of my drawings, agreed that the law of the production of buds (la loi du bourgeonnement) was the strongest argument against his theory, and himself encouraged me to prosecute my observations, and to explain them with more detail. In the present memoir it is my intention to execute a part of this flattering commission.

To the number of those appearances in the fruit of phænogamous plants unexplained by DeCandolle's theory, belongs the situation of the placenta of botanical authors (i.e. the main stalk of the seeds or spermophorum *Link* et *mihi*) in certain natural families where it is outside the carpels (Spermophorum extra carpellare *mihi*). I have hitherto observed this position of the main seed stem in the Boragineæ, Labiatæ, Valerianeæ, Araliaceæ and Umbelliferæ.

For a long time a false opinion prevailed amongst Botanists that the whole flower was but one organ, and even now that according to the latest theories the flower contains many organs more or less symmetrically arranged; they consider the place from whence proceed the sepals, the petals, the stamens, and the pistils, as a terminal nodus, whereas, by the undisputed affinity with bulbs, whether tunicate or squamate, it is impossible not to admit the existence at the place in question of several very short internodia. Agardh himself, considering the fruit as a terminal bud, consisting in its simplest form of one carpellary leaf with the seed-bearing stalk in its axilla, does not by this view embrace the greater portion of the phenomena. According to my observations in many compound fruits, whether unilocular or plurilocular, with a so called central or columnar placenta, there does not arise a separate bud from the axilla of each carpellary leaf, but the whole central support or common seed-stalk is the immediate prolongation of the floral axis or peduncle, forming an internodium above the nodus from whence proceed the carpellary leaves. It is then either covered with seeds dispersed without any perceptible order, as in Primulaceæ and Caryophyllaceæ, or it forms at a greater or less height a special nodus from whence one or two seeds descend into each cell of the fruit, supported on distinct seminal pedicels, as in the Malvaceæ with monospermous carpels, Phytolacca decandra, and all Euphorbiaceæ. In the latter family the seed-stem is already almost free, that is, the margins of the carpellary leaves scarcely adhere to it, and readily separate when ripe without any laceration of the tissue.

In the Boragineæ the seed-stem as is known is entirely free, or on the outside of four completely closed carpels arranged around on one horizontal plane.

These closed carpels or caryopses have in their structure, especially as regards their outer integuments, considerable resemblance to those seeds which Mirbel* distinguishes under the name of *curved* or *campylotropous*, inasmuch as the aperture for the passage of the *distinct* portion in seminal pedicels (*Spermopodium* mihi non Hoffm. *Funiculus umbilicalis* auct.) is very near to the organic base of the carpellary leaf, wherefore they are generally spoken of by descriptive Botanists as *Nuces basi perforatæ*, and wherefore the error of Linnæus, who considered them as naked seeds, was excusable. Thus, in the genus Asperugo, each carpel has the appearance of a free pendulous coccus, which the analogy only to the fruits of other genera in the same family prevents one from taking for the outer integument of the seed. Here the nodus of the attachment of the calyx is separated by a very distinct internodium from that nodus where the bases of the four carpellary leaves are attached, and from whence proceed the partial seminal pedicels through the appropriate apertures of the carpels, which I call *spermopyle*,* into the cavity of those carpels. In the genus Cynoglossum two evident internodia may be observed, the one between the attachment of the calyx and corolla and that of the carpellary leaves, the other between these and the partial seminal pedicels.†

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* Nouvelles recherches sur le structure de l'ovule végétale et sur ses développemens. 1. Mem. 1828 p. 3.

The latter internodium may be observed much more conspicuously in the Echinospermum which M. Dvigoubski in his Flora of Moscow distinguishes as a section of Myosotis with prickly seeds. Here, as Schrader has admirably represented in the Echinospermum Lappula, the axis presents a four-sided pyramid with excavated concave surfaces. At the base of each of these longitudinal concavities is a bunch of fibres forming the connection between the carpellary leaf and the axis, and representing its petiole. At a considerable interval higher up there proceeds from the same concavity another bunch of fibres forming the partial seminal pedicel. And thus it is evident that the partial seminal pedicel does not proceed from the margin of the carpellary leaf, and that the internodium which separates the two abovementioned branches of fibres is that which authors generally call the placenta, with this difference only, that it is not enclosed within the cavity of the carpel, but is what I call the extracarpellary spermophorum. Precisely the same structure is observable in Echinospermum deflexum *Lehm*, and probably in all the species of the genus. In the Labiatæ, and in all those Borагineæ described as having nuces basi imperforatæ, the structure of the carpellary leaf is very similar, as I have already said, to Mirbel's campylotropous seeds, and on this account they are even now sometimes described as having *semina nuda*, and the plants are called *gymnospermous.*

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* From the Greek word σπερμα seed, and πυλη a gate, an entrance corresponding to the other term I have adopted of *blastopyle* in lieu of the *micropyle* of Turpin.

† See de Asperifoliis Linnæi Commentatio auct. H. A. Schrader, fig. d. c.—A third internodium in this family is formed by the continuation of the axis which gradually runs into the stigma, without producing any more lateral appendages.

In the Valerianeæ the common seminal stem is still more evident, presenting two nodi, the one below consisting in the point of attachment of the calyx as well as of the carpellary leaves, the other above, from whence proceed the partial seminal pedicels.* In many species which I have happened to examine belonging to the genera *Valeriana* L. *Fedia*, Mœnch, *Valerianella* Mœnch, and *Patrinia* Juss. immediately under the outer integument of the fruit, formed as is known by the calyx which covers it—along the exterior, somewhat concave, surface of the cell that encloses the seed, it is easy to observe a more or less thin threadlike organ, on which the two abovementioned nodi are evident, and not unfrequently there proceeds from the upper one a new internodium forming the style, as I have seen it even in the perfectly ripe fruit of Valerianella hamata *Bast.* I have said *even* in the perfectly ripe fruit, for we must know that by the general laws of vegetable life, all vegetative organs approaching to maturity, with the gradual breaking off of their organic activity, lose also gradually their fulness, *turgor vitalis*, and at length dry up and disappear, and on that account this extracarpellary general seminal stem in the Valerianeæ may have been easily overlooked by botanical describers, not guided by speculations such as ours. I may here remark *en passant*, that besides the evident presence of three cells easily separable one from another without rupture of the tissue in Nardostachys, Dufresnea, and Patrinia, I have also observed sometimes in Patrinia sibirica that the seed is not solitary, i. e. that one or two ordinary seedless cells have contained a seed, though, it is true, less perfect and smaller than the ordinary seed. This, amongst other things, refutes the objections of Bunge relative to the structure of the fruit in Valerianeæ, made in the 1st vol. of the Flora Altaica.

The constant presence of perfect seeds—differing only in form from each other—in both cells of the ripe fruit of the new genus Hoplitis, established by the distinguished Vienna botanist, Mr. Endlicher, and the existence at the same time of an extra carpellary common seed-stalk is an additional proof in support of my theory.

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* In the genus Nardostachys, DC. the attachment of the cocci, or cells, appears to be similar to that of Asperugo, at least as far as can be judged from DeCandolle's figure (Mem. sur la famille des Valerianées, pl. 1. 2.); the seedless cells do not reach to the base of the fruit or nodus of the attachment of the calyx.

And now I think that every one must agree with me that in the entire, extensive, and most natural family of the Umbelliferæ, that organ which the late Professor Hoffman called Spermopodium, and which DeCandolle calls the Carpophorum, is nothing else than the same extracarpellary common seed-stalk. From the very close affinity even in the fruit between the Saxifragaceæ and the Umbelliferæ, it appears to me that we may safely conclude that the base or lower point of attachment of the carpels is in the same place as that of the sepals, which, if the general opinion be followed, cover the fruit, become connate with it and with each other;* consequently the next nodus of the prolonged axis, to which they are suspended for some time at their maturity, emits laterally only the partial seminal pedicels, and higher up the styles with their thickened bases or stylopodia. But if we admit that the carpellary envelopes have their base at the same upper nodus of the axis, and that like the seminal envelopes they are campylotropous and pendulous, even then it would not follow that the partial seminal pedicels proceed from the margin of the carpellary leaves, as is asserted under the prevalent theory, and not from the nodus of the axis, which latter is infinitely more probable, and in many cases evident to the eye.

In close alliance with the Umbelliferæ is the family of the Araliaceæ, and here we find two or more, even to twelve monospermous carpels growing together by means of the calyx which clothes them—and here withoutside of the closed carpels we see the prolongation of the floral peduncle in the form of a central axis emitting from an upper nodus the seeds which enter the cavity of the carpel through the abovementioned aperture (Spermopyle *mihi*), and hang freely in them without ever adhering to the parietes of the cell at any period of their growth. It is probable that Don (Prod. Fl. Nep. p. 186) took the carpels for the outer envelop of the seed when he asserts, as quoted by DeCandolle, in his Prodromus, that the seeds are erect. But in the genera Hedera and Adoxa it is evident that the seeds are attached to the axis withoutside the corneo-membranous carpels. So in Panax in the words of DeCandolle, "Fructus carnosus, compressus, orbiculatus aut didymus, bilocularis, loculis *coriaceo-chartaceis monospermis*," and in Aralia itself he describes the fruit "Bacca 5-locularis sæpe torosa; *Pyrenæ chartaceæ*." Hence I maintain that my conclusions are not erroneous, and that consequently the extracarpellary attachment of the seeds in these cases is proved.

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* According to my ideas, the calyx of Umbelliferæ, not ceasing to be superior in the female and hermaphrodite flowers, proceeds from that nodus of the prolongation of the peduncle, from whence proceed also the styles with their thickened basis or stylopodia, as well as the partial seminal pedicels. The verticil of organs which covers the fruit I should consider as a kind of involucellum, a proof of which is furnished by the number of primary and secondary *juga* of the fruit, which cannot be explained by the ordinary theory; by the independence of this involucellum from the calyx in the female flowers of Astrantia, and its great affinity to the involucellum in the allied family of Dipsaceæ. (See Seseli, Hippomarathrum, and Bupleurum stellatum.)

Lastly, in the family of the Viburneæ Bartl. or Sambuceæ Kunth, which by the structure of the fruit as well as by the habitus is so different, as remarked by Bartling, from the Caprifoliaceæ, with which it has hitherto been united even by DeCandolle,—in the young ovary three cells may be plainly observed, and outside of them a continuation of the axis or floral peduncle, emitting into the cavity of each cell a suspended ovule. In the first stage of the growth of the seed it is easy to perceive that that hard shell which has been erroneously taken for the outer integument of the seed is the carpel, for its cavity is then very considerable, and the ovule scarcely occupies a tenth part of it. So I have found it in the Sambucus racemosus; and the close analogy between the carpels of the genus Viburnum with the monospermous cells of the Hamamelideæ, Br. and Corneæ DC. (in which no one has taken the stony carpels for the testa of the seed) proves that it is by abortion that here the external symmetry is destroyed of three carpels, to which correspond the three styles in the flower, placed by Linnæus in the order trigynia of his fifth class.

The object of my present observations does not extend to the critical examination of the structure of the fruit in all the genera belonging to the natural families I have quoted, but I venture to assert, that the greater the number of observations the more they tend to confirm the truth of Agardh's rule, that the seeds are attached not to the margin of the leaf, but to a special supporting organ.

62. EPIDĒNDRŪM (Hormidium) *mĭsĕrūm;* caulibus ovalibus exuviatis compressis aggregatis, foliis . . . . ., scapo brevissimo subbifloro, spathâ bivalvi pedunculis subæquali membranaceâ, sepalis ovatis acutis, petalis linearibus, labelli trilobi lobis lateralibus rotundatis inconspicuis intermedio truncato emarginato, callis nullis.

A miserable little epiphyte, whose stems, resembling pseudo-bulbs, are about half-an-inch high from the ground on which they grow. The scape, peduncles, and ovaries, taken together, are about the same length. The flowers are a dull, dingy, greenish-brown, not unlike those of E. musciferum. Messrs. Loddiges imported it from Oaxaca.

63. EPIDĒNDRŪM *leiobūlbōn.* Hooker's Journal of Botany, vol. iii. t. 10, is a small specimen of *Epidendrum varicosum.*

64. PLEUROTHĀLLĬS *pedunculārĭs.* Hooker's Journal of Bot. vol. iii. t. 9, is *Pl. aphthosa.*

65. BOLBOPHȲLLŪM *imbricātūm;* scapo erecto distantèr obtusè vaginato, spicâ fusiformi subtetragonâ vix compressâ, bracteis ovatis obtusis imbricatis demum marcescentibus, alabastro cornuto pubescente, sepalo supremo lineari lateralibus ovalibus brevioribus, petalis filiformibus hirsutis, labello ovato basi pectinato.

This singular plant has been obtained by Messrs. Loddiges from Sierra Leone (171). It approaches closely to the Mauritian B. occultum, and with it and some others forms an analogy with Megaclinium. The flower-stem is a foot high, stout, and nearly erect; the flowers are deep dull purple. Like many others of the genus, the spiral vessels are extremely strong and tough in the sepals and petals, and, which is very remarkable, *they are of a rich purple colour.* I am not at present acquainted with any similar case, for in general the spiral thread of the tracheæ is peculiarly colourless and silvery.

66. CHOROZĒMĂ (Euchorozema) *spectābĭlĕ;* foliis oblongis angustis mucronulatis subtus glabriusculis, racemis terminalibus multifloris laxis, calycibus semiquadrifidis; laciniis tubo longioribus.

This a charming Swan River climber, of small size, admirably adapted for covering a small trellis in a garden-pot. Its flowers are pale orange, slightly tinged with crimson, and exceedingly pretty. They appear in abundance at the end of every shoot. We have received it from Mr. Standish of Bagshot, and it has flowered abundantly in the Garden of the Horticultural Society.

67. BOSSIǢĂ *dīstĭchă;* ramis junioribus teretibus, foliis distichis ovatis obtusis muticis, stipulis petiolo longioribus, floribus solitariis axillaribus pedicellis folio longioribus.

A very pretty Swan River shrub, with small leaves arranged in two rows, slender drooping branches, and large axillary yellow flowers. It has flowered in the Garden of the Horticultural Society.

68. MAXILLĀRĬĂ *Harrisōnĭǣ.*

A delicate white variety of this beautiful epiphyte has been imported by Messrs. Loddiges. The sepals and petals are a clear cream colour, just tinged with violet at the tip of the former. The lip is the same as in the original variety, but somewhat paler.

69. ĔRĬĂ *longilābrĭs* (Tonsæ); Eriæ bractescentis facie sed sepalis petalisque magis acuminatis, labelli trilobi lamellis tribus ad apicem ferè productis æqualibus lateralibus abbreviatis lobo medio ovato acuminato.

A native of Panay in the Philippines, whence it was sent to Messrs. Loddiges by Mr. Cuming. It is very like Eria bractescens, but is a finer species, and bears more flowers; and is distinguished at once by its lip, which is not truncate, and has three equal wavy ridges prolonged almost as far as the tip of the middle lobe, which is long and acuminated.

70. ĔRĬĂ *armenĭăcă* (Lanatæ); pseudobulbis ovalibus compressis triphyllis, foliis oblongo-lanceolatis coriaceis lævibus, racemo tomentoso radicali basi vaginato stricto foliis æquali v. longiore, foliis scapi bracteisque lanceolatis acuminatis subcoriaceis (armeniacis), labelli lobis lateralibus dentiformibus intermedio rhombeo crispo; lamellis 3 rectis haud crispatis lateralibus abbreviatis divergentibus intermediâ versus apicem labelli productâ.

A beautiful epiphyte, sent to Messrs. Loddiges by Mr. Cuming, who found it abundantly in the Philippines, in the island of Negros, and elsewhere. Its flowering stem is a foot high, and bears a great number of large tough apricot-coloured scales and bracts. The flowers, however, are a dull dirty brown, not at all pretty. This is the first of the Erias with large coloured bracts that we have seen; several exist in Java according to Dr. Blume. The species is near the Dendrolirium ornatum of that author, but the bracts are not red, nor revolute at the margin, the leaves are not strongly ribbed, nor are the lamellæ of the lip at all the same.

71. EPIDĒNDRŪM (Lanium) *microphȳllūm*. Lindley in Hooker's Journal of Botany, 3. 85.

A curious little plant, with small woolly dull purple flowers. It and another constitute a well marked section of this great genus, to which the name of Lanium has been applied, in allusion to the singular circumstance of the flowers being woolly. Messrs. Loddiges flowered it the other day from Schomburgk's Demerara collections, and I have since received it from Mr. Bateman, who obtained it from Berbice.

72. CȲRTŎCHĪLŪM *fīlĭpĕs;* scapo longissimo simplici filiformi apice ipso paucifloro, sepalis petalisque lanceolatis conformibus acutis planis, labello cuneato bifido apice dilatato basi dente porrecto subsimplici subtuberculato aucto, columnæ alis minimis cuneatis truncatis.

A Cyrtochilum, with the yellow flowers of an Oncidium, imported from Guatemala by Mr. Bateman. It has a very slender stem, above two feet long, perfectly simple, on the extreme point of which are four or five flowers about the size of those of C. maculatum.

73. BEGŌNĬĂ *incānă;* caulescens, erecta, tomentoso-incana, foliis coriaceis peltatis oblongis acutis subangulatis subtùs albidis, pedunculo longissimo, paniculâ parvâ contractâ, floribus masculis tetrapetalis pubescentibus, fœmineis . . . . .

A striking species of this genus, with the aspect of Peperomia incana, imported from Mexico by John Rogers, Esq. The flowers are white in a small contracted downy panicle. The males only have hitherto been seen.

74. BEGŌNĬĂ *papillōsă;* caulescens, erecta, molliter pilosa, foliis semicordatis pilosis supra papillosis subtus dealbatis oblongis acuminatis denticulatis; lobo baseos maximo rotundato, paniculâ ter dichotomâ, capsulæ pilosæ alis obtusis alterâ paulo majore.

The native country of this species is unknown; it sprang up in the Garden of the Horticultural Society, no doubt from imported soil. It has a fine firm broad foliage, and rather handsome white flowers, whose stalks and capsules are covered closely with long spreading white hairs.

75. LĀLĂGĒ *hoveæ̆fŏlĭă.* Bentham in Botanical Register, Appendix xiii.

This plant, of which a specific character was given by Mr. Bentham in the work above quoted, has flowered with Messrs. Lucombe, Pince & Co. of Exeter, by whom it was exhibited at a meeting of the Horticultural Society in Regent Street, at the end of March last. The garden plant has rather broader leaves; and fewer flowers than the wild specimens, whose branches are literally loaded with blossoms, of a dull yellowish-orange, stained with purple at the back of the standard. We have not seen it in a favourable state, for it is said to expand fully only beneath bright light, but we should expect it to be a plant of considerable beauty when old and flowering freely. It is a pea-flowered genus, allied to Pultenæa. The species is no doubt a greenhouse shrub of easy cultivation.

76. PULTENǢĂ *brachy̆trŏpĭs* (Bentham mss.); ramis laxè sericeo-pilosis, stipulis persistentibus erectis, foliis breviter petiolatis oblongo-linearibus mucronatis marginè revolutis pilosiusculis, capitulis terminalibus foliatis, stipulis floralibus per paria connatis in bracteas fusco-membranaceas trifidas, laciniis lateralibus lanceolatis intermediâ abbreviatâ, calycis bilabiati laciniis superioribus ovatis inferioribus lanceolatis, carinâ alis dimidio breviore.

A pretty little greenhouse shrub, from Port Augusta, on the South-west coast of New Holland, whence seeds were sent to Capt. James Mangles, R.N. by Mrs. Molloy, a lady whose zeal in the pursuit of Botany has brought us acquainted with many of the plants of that little known part of the world. It has something the habit of Chorozema Dicksoni, but the flowers grow in heads, and are pale orange.

77. NOTY̆LĬĂ *aromātĭcă;* (Barker in litt.) labello unguiculato ovato-rhomboideo acuminato basi utrinque deflexo ecalloso, sepalis apice revolutis inferiore bilobo, petalis linearibus rectis acutis.

A small inconspicuous species, with pale watery-green very sweet-scented flowers, a native of Para, whence it was obtained by Mr. Barker. There are two dull yellow spots near the base of each petal; otherwise the flower is unspotted. It is very near N. Barkeri, from which it differs in the form of the labellum, which has no callus at the base; in this species the labellum is falcate, convex, taper-pointed, with the base bent considerably downwards on each side.

78. STYLĪDĬŪM *prolĭfĕrūm.* DeCand. Prodr. vii. 783.

A curious little Swan River herbaceous plant, with red branching stems and small pink flowers, very pretty when in perfection. It has been raised by Messrs. Veitch and Son of Exeter. Apparently it is only annual.

79. STYLĪDĬŪM *pilōsūm.* Labill. nov. holl. 2. 63. t. 213.

This fine species has much the appearance of a broad-leaved Armeria, until it flowers, when it throws up a simple panicle of very pale pink flowers, as large as those of a Leschenaultia. It is exceedingly pretty while in perfection, but it soon goes off. It is a Swan River plant, and was exhibited with the last before the Horticutural Society by Messrs. Veitch & Co. of Exeter, to whom a medal was awarded on the occasion.

80. OXYLŎBĬŪM *capitātūm.* Bentham in Hugel's Enumeratio, p. 28.

A pretty little greenhouse shrub, from Swan River, raised by Robert Mangles, Esq. It has narrow opposite leaves, silky underneath, and short-stalked heads of yellow and brown flowers. It is not of much horticultural importance.

81. ZĬCHY̆Ă *villōsă;* foliis ovatis acutis subtus pallidis ramisque villosis, laciniis calycinis tubo brevioribus, carinâ alis æquali, stylo apice simplici, corymbis densis capitatis multifloris longi pedunculatis.

A quite new species of that division of the old genus Kennedya, to which the name of Zichya is now applied, and certainly prettier than any of them. The leaflets are much smaller than in Z. inophylla, ovate, sharp-pointed, and covered with long soft hairs as well as the branches. The flowers are small, but of a brilliant vermilion tinged with violet. Mr. Standish of Bagshot has sent specimens for examination. It is from the Swan.

82. MEGACLĪNĬŪM *Būfō* ; rachi maximâ lanceolatâ, floribus nigro-pilosis, sepalis acutissimis supremo lævi lateralibus intùs pubescentibus, petalis minimis acutis glabris, labello ovato carnoso rugoso.

Let the reader imagine a green snake to be pressed flat like a dried flower, and then to have a row of toads, or some such speckled reptiles, drawn up along the middle in single file, their backs set up, their forelegs sprawling right and left, and their mouths wide open, with a large purple tongue wagging about convulsively; and a pretty considerable approach will be gained to an idea of this strange plant, which, if Pythagoras had but known of it, would have rendered all arguments about the transmigration of souls superfluous. It is a native of Sierra Leone, whence Messrs. Loddiges received it. A figure of it will be published in some future number of the Gardener's Chronicle.

83. GONATĀNTHŬS *sarmentōsŭs* (Link, Klotzsch & Otto, p. 33. t. 14.); rhizomatibus tuberosis, apice stoloniferis ; foliis membranaceis, peltatis, ovatis, brevi-acuminatis, basi cordato-emarginatis, petiolis teretibus, glabris, albescente-viridibus ; spatha longissima, alutacea, convoluta ; spadice brevi ; antherarum connectivis apice atropurpureis.

This is an Araceous plant from India (?) which has been raised in the Royal Botanic Garden, Berlin. It has leaves something like those of the common Wake Robin, but with the lobes at the base connate. The spathe is long, dull yellow, abruptly bent near the base, and extended into a long narrow convolute point. Dr. Klotzsch thus characterizes the new genus to which he refers it.

GONATANTHUS N. Spatha persistens, ad basin globoso-constricta, convoluta, in genu obliquum pollicare dilatato-complanata, antice aperta, apice convolutim-transiens, limbo longissimo convoluto, Spadix liber, brevis, interrupte-androgynus, genitalibus rudimentariis infra ovaria et stamina, appendice sterili nullo. Antheræ 6, uniloculares, connatæ, connectivo crasso, peltato, 6 lobato, brevi stipitato, verticillatim adnatæ, infra apicem poro dehiscentes. Pollinis granula lenticularia, minutissime-echinata. Ovaria plurima, conferta, libera, unilocularia, intus ad apicem appendice columnari pendula, basimque appendice centrali, scutellæformi instructa. Ovula plurima, conferta, infra scutellam basilarem affixa, e funiculis longiusculis erecto-incurva, orthotropa. Stigma sessile, umbilicato-depressum. Bacca . . . .

Herba indica? rhizomate tuberoso apice stolonifero, foliis tempestivis, peltatis; spatha alutacea.

84. PISŌNĬĂ *Olfersiānā* (Link, Klotzsch, & Otto, p. 36. t. 15.); arborescens, inermis; foliis oppositis, interdum quaternis, petiolatis, magnis, oblongis, basi apiceque attenuatis, carnoso-membranaceis, arcuato deflexis, subundulatis, integerrimis, læte-viridibus, undique albido-punctulatis, glabris; floribus terminalibus, cymosis, alutaceo-roseis, ad basin bracteis tribus, minutis, inæqualibus instructis; masculis heptandris absolete-quinque-dentatis, filamentis albidis, antheris fuscescentibus; femineis quinquelobatis, stigmatibus candidis, subexsertis.

A singular Brazilian hothouse shrub, with opposite oblong lanceolate leaves, and small stiff panicles of dull pink flowers, partly male, partly female. It has little beauty.

85. ODONTOGLŌSSŪM *Ehrenbērgĭī* (Link, Klotzsch, & Otto, p. 38. t. 16).

This Mexican epiphyte is surely the same as O. *Rossii* figured in this work, but not so fine a specimen.

86. DENDRŌBĬŪM *acerōsum*; caulibus brevibus teretibus glabris, foliis carnosis teretibus obtusiusculis, racemo terminali brevi paucifloro, bracteis membranaceis convolutis, floribus semiclausis longè cornutis, sepalis petalisque erectis acutis, labello cuneato emarginato apice crispato calvo.

A small uninteresting plant from Sincapore, imported by Messrs. Loddiges, who bought it of Cuming, (357). It is near O. teretifolium, but has smaller flowers, shorter leaves, and quite a different lip. The flowers are dull yellowish pink, with pink stripes.

87. CYRTOCHĪLŪM *maculātūm*; var. *parviflorum*; labello subhastato laciniis lateralibus majoribus.

Messrs. Loddiges have flowered a Mexican plant, (no. 794) which in so many respects corresponds with the now common C. maculatum, that I cannot regard it as more than a variety, but which nevertheless differs in having smaller flowers, with the lateral lobes of the lip so much larger than usual as to give it a hastate appearance, and with a frequent union between the lower sepals more or less complete. This circumstance breaks down yet more the limits between Cyrtochilum and Oncidium.

88. AŌTŬS *lanĭgĕră*. A. Cunningh. Benth. dissert. de legumin. gen. p. 78.

This is a pretty greenhouse shrub, with narrow deep green sharp-pointed leaves, and thick racemes of yellow pea-flowers, very little streaked with crimson. Mr. Cunningham found it at Moreton Bay, in swampy ground. It has lately flowered in the nursery of Mr. Knight of the King's Road.

89. PODOLŎBĬŪM *berberifŏlĭūm*. A. Cuningh. mss.

Mr. Knight, of the Exotic nursery, King's Road, has raised this plant from New Holland seeds. It is a pretty greenhouse bush, with axillary clear orange-yellow pea-flowers, relieved by a dull red keel and streaks on the base of the standard. It is nearly related to Podolobium trilobatum, but has much darker and smaller leaves, which are also more prickly. It may however be only a variety of P. trilobatum.

90. EPIDĒNDRŪM (Encyclium) *hastātūm*, Lindley in Hooker's Journal, vol. 3, p. 82. (pseudobulbis ovatis, foliis linearibus acutis.)

A very fragrant species from Bolanos, imported by Messrs. Loddiges. There appear to be two varieties, one with purple and the other with green sepals. In both the lip is white, and the column dull deep purple. It produces a simple raceme of flowers about a foot long.

91. GERĂNĬŪM *eriānthūm*. DeCand. prodr. 1. 641.

A handsome hardy perennial, raised in the garden of the Horticultural Society from N. W. American seeds, presented by the late H. Moreton Dyer, Esq. It has grey leaves, and large rich purple flowers. It is one of our best herbaceous plants for the border of a shrubbery.

92. ERĬGĔRŎN *squarrōsūm;* (Sect. 1. § 1. x. DC.) caulibus erectis corymbosis densè pubescentibus, foliis glabris lucidis radicalibus spathulatis longè petiolatis caulinis sessilibus ovato-lanceolatis acuminatis, ligulis linearibus, involucro glanduloso squarroso.

A hardy perennial from N. W. America, much resembling the common Stenactis speciosa, from which it differs in having broader radial florets, leaves of a different form, and an involucre whose leaflets are closely covered with glands, and distinctly squarrose. It is a good herbaceous plant; the seeds were procured for the Horticultural Society by the late H. Moreton Dyer, Esq.

93. SPIRǢĂ *lanceolātă*. Poir. dict. 7. 353. Cambess. in ann. sc. nat. 1. 366. t. 25.

A hardy shrub with white flowers, native of China. It has the habit of Spiræa bella, and others of the same section of the genus Spiræa, from which it is known by its lanceolate, lobed, and serrated leaves, which are quite smooth, but paler on the under than the upper side. The clusters of flowers are on longer stalks than are represented in the figure published by M. Cambessédes, but it exactly agrees with his description. In the gardens it is known under the name of Sp. Reevesiana.

94. HIBBĒRTĬĂ *perfoliātă*. Hugel's Enum. p. 3.

A very handsome Swan River greenhouse shrub, with firm glaucous oblong leaves, stem clasping, terminated by a free point and slightly toothed at the margin. The flowers are single, opposite the leaves, bright clear yellow, and almost as large as those of the old Hibbertia volubilis; they are free from all unpleasant smell. The specimen before me is a foot high, branched from the base, as it is described by Endlicher in Hugel's enumeration. But I find no sign of twining, and the stems are very slightly four-cornered, while the ovaries vary in number from four to five, the number three not having been found upon any one of the four flowers that expanded; nevertheless I entertain little doubt that these differences arise from the state of Baron Hugel's dried specimens. Occasionally the leaves are slightly repand. This species has flowered in the garden of the Horticultural Society.

95. STYLĪDĬŪM *Brunoniānūm*. Bentham in Hugel's Enum. p. 72.

A very pretty species, with two or three whorls of narrow glaucous leaves, and pyramids of bright pink flowers placed tier upon tier. It is a greenhouse plant, and probably an annual, native of the Swan River colony. It has flowered in several collections near town.

96. GESNĒRĬĂ *dīscŏlŏr;* caule herbaceo erecto pubescente, foliis oppositis ovatis altè cordatis dentatis longè petiolatis incanis, paniculâ aphyllâ glaberrimâ vernicatâ, corollis clavatis glabris pedicellis duplò longioribus : limbi lobis rotundatis subæqualibus.

A very fine species of this beautiful genus, with unusually large thick heart-shaped leaves, and smooth terminal panicles of deep crimson flowers, whose pedicels are deep purple, and the whole inflorescence glossy as if varnished. It has been introduced from South America by Mr. Young, nurseryman, Epsom, and is a valuable acquisition. It will soon be figured in this work.

97. MATHĬŎLĂ *maderēnsĭs.* Lowe mss.

This is a very fine species in the way of the common Queen's Stock. It has a half-shrubby stem, branching and forming a bush about two feet high. The lower leaves are as large as those of some kinds of Hounds-tongue, and like them in texture and form. The upper leaves are narrower and a little wavy. The flowers are in close racemes, large, and of a bright violet; and when they first expand the plant is beautiful. But after a time the flowering stem lengthens, the lower leaves fall off, and the plant becomes naked and ugly; it should therefore be placed out of sight when the flowering is over. If it would become double, as it probably will, it would be a decided improvement upon the present race of Stocks. Gardeners should try to cross it with the semi-double stocks; in this way it would probably throw double flowers. The wild plant is by no means so handsome as that of gardens. The smell of the flowers is unpleasant, resembling Berberry blossoms.

98. EPIDĒNDRŪM (Encyclium) *aciculāre;* (Bateman in litt.) pseudobulbis oblongis diphyllis, foliis linearibus canaliculatis acutis racemo simplici æqualibus, sepalis petalisque lineari-lanceolatis æqualibus acutis, labelli laciniis lateralibus ascendentibus linearibus obtusis apice recurvis intermediâ ovato-oblongâ subundulatâ (pictâ) acutâ.

A pretty little species, obtained from the Bahamas by Mr. Skinner, who gave it to Mr. Bateman. It is in the way of Epidendrum Pastoris, has long narrow leaves, a slender erect raceme of six or seven flowers, whose sepals and petals are dull purple, and lip white, enlivened with rosy veins.

99.

In the last number of the Annales des Sciences, M. Adolphe Brongniart has proposed a new genus of Orchidaceous plants, founded on a specimen that has flowered in the Garden of Plants, and which he calls Houlletia, assigning it the following character :—

Perianthium membranaceum patens (non reflexum). Sepala concava libera, inferioribus vix basi columnæ connatis. Petala basi angustata, unguiculata, apice rotundata. Labellum cum basi incurvatâ columnæ articulatum, liberum, carnosum, medio constrictum articulatum, parte basilari (*hypochilio*) oblongâ planâ, lobis seu processubus lateralibus membranaceis angustis retrorsùm arcuatis corniformibus, parte apicilari (*epichilio*) infra basilarem articulatâ integrâ.—Columna perianthio brevior arcuata semi-teres, antice plana, vix superne alato-marginata. Stigma transversè excavatum. Anthera opercularis depressa; pollinia duo oblonga angusta, externè sulcata, caudiculâ membranaceâ oblongâ basi connata, glandulâ angustâ lanceolatâ.

Epiphyta, pseudo-bulbis ovato-conicis, monophyllis, foliis longissime petiolatis, plicatis, membranaceis, scapo radicali ascendente, floribus racemosis nutantibus, ovario plus minusve contorto, perianthio membranaceo pallidè maculato, fragrante, labello carnoso maculis atro-violaceis insperso, lævem odorem stercoreum olente.

He considers it near Stanhopea, from which it differs in its sepals not being reflexed, its lip articulated in the middle, the lower half bearing two membranous horns directed backwards and upwards towards the column, by the column being short and not membranous at the edge, by the petals having a stalk, by the lanceolate form of the gland of the pollen-masses, and by the flowering stem being erect, not pendulous. Upon considering this character it is evident that Houlletia is either the same as Maxillaria? Brocklehurstiana, already mentioned in this volume, p. 10. no. 28, or a plant very nearly related to it. As the genus is no doubt a good one, it will be necessary to change the name of my species to Houlletia Brocklehurstiana. At the same time I have a new species to add.

100. HOULLĔTĬĂ *vittātă*; sepalis linearibus acutis, petalis lineari-lanceolatis basi tortis, hypochilii lobis ovatis obtusis rectis, epichilio rhombeo apice rotundato angulis lateralibus acutis.

This very curious plant was received by Messrs. Loddiges from Mr. Schomburgk. It has the erect raceme of Houlletia Brocklehurstiana, but the flowers are much smaller, form a pyramidal mass, and are yellow, streaked with so much deep chocolate colour that the former is hardly seen except on the lip. From the similarity in habit between these plants and Maxillaria Warreana one would have thought they must belong to the same genus. I cannot, however, find any combining character, and their differences are very numerous.

101. GONGŌRĂ *maculātă*; var. *alba*.

Among the Orchidaceous plants received by the Horticultural Society from Oaxaca, a singular variety of Gongora has made its appearance, with all the habit of the original, but with flowers almost white, except some pale dull wine-coloured spots on the sepals. It is a very graceful thing, and forms a good contrast with the old yellow and purple kinds.

NEW VIEWS CONCERNING STARCH.

In the last number of the Annales des Sciences there has appeared a very interesting paper by Mr. Mohl, concerning the action of iodine upon the elementary organs of plants. We hardly need inform our readers that starch is a product of the vegetable kingdom, found in the shape of oblong bodies of various sizes in the interior of cells, and that it has the property of becoming blue if acted upon by iodine; which immediately detects its presence. It has also been supposed, up to the present time, that starch is the only known substance whose colour is thus affected when acted upon by iodine. It appears, however, from the researches now before us, either that other substances are so acted upon, or that starch exists in other states than that of the granules just spoken of.

Schleiden had remarked, that when cells are boiled in a ley of caustic alkali till they are dry, they are stained blue by the action of iodine, but lose the property by a prolonged ebullition in water. He did not however absolutely admit that by this process the lining of cells is changed into starch, but he thought it most probably was so, because when weak sulphuric acid acts upon vegetable tissue, and iodine is added, a small quantity of iodide of starch is obtained. He supposes that by this operation the primitive membrane of cells is also changed into starch. He also considered that when woody tissue is converted into gum and sugar by the action of sulphuric acid, that action is secondary, a conversion of it into starch always taking place in the first instance. Schleiden also found that the embryo of *Schotia latifolia* is completely soluble in water, except the epidermis, and that this solution became blue by the action of iodine; wherefore he inferred that he had found a plant whose cellular tissue is in its natural state all starch.

Mr. Mohl's object has been to pursue this enquiry without calling in the aid of re-agents. When the cells of the cotyledons of the Tropœolum majus are sliced thin and acted upon by a concentrated tincture of iodine, they become a fine indigo-blue, but not suddenly; they are at first yellowish, and it is only after some time they become blue, and then it is by a transition through green, owing to the mixture of yellow and blue particles. In the mean while the primitive membranes remain yellow. But if such a slice is placed for a few seconds in strong caustic alkali, and is then washed in water, iodine then colours the cells at once of a clear indigo blue, and the primitive membrane acquires the same colour, but paler. The cells of Tropœolum are horny at first, and swell up when treated with water; the same kind of texture occurs in Lichens, and Professor Mohl, in consequence, directed his observations to those plants. Although he did not meet with all the success he expected in the course of their examination, nevertheless he found that the shields of many species presented a similar phænomenon; for in many cases iodine produced a most beautiful indigo-blue both in the asci composed of primitive membrane, and in the intercellular substance that unites the cells.

In examining the horny albumen of Endogens, several interesting remarks were made. The cells of which it is composed are generally very thick-sided, perfectly colourless, and are readily distended with water. When a slice of such albumen, previously softened in water, is exposed to the action of a concentrated tincture of iodine, the cellular membranes presently acquire colour; but it is not easy to describe in what way the changes of colour take place, because at first the iodine does not produce the colour which eventually results from its prolonged action. In general it produces at first a yellow colour, which by the intense action of iodine becomes brown; moreover this agent produces, in most cases, if it acts long enough, a blue colour. This blue is however never of the clear indigo tint that is observed, for instance, in the shields of Lichens, but it is always reddish, and of all tints from vinous to violet, so that in fact it presents all the tints observable in vapour of iodine of different degrees of density.

From these and a great many more observations, Professor Mohl draws the following conclusions.

1. Iodine causes the cellular membrane of plants to assume different colours, according to the quantity of it that is absorbed; a small quantity produces a yellow or brown tint, a larger quantity forms violet, and a still larger amount of it causes the production of blue. Iodine may communicate to cellular membrane, when dry, a yellow or brown tint, provided it, the iodine, is dissolved in alcohol, or comes in contact with the membrane in the form of vapour; but the violet or blue colours are only formed when the membrane is saturated with water. Blue changes to violet or red as the membrane dries, and returns when it is again moistened. Similar variations of colour are obtained with common starch, according as it is dry or moist.

2. The colour that the membrane of cells assumes, under the action of iodine, is not dependent merely upon the quantity of iodine employed, but is also connected with the organization of the membrane itself. Membranes which are softest, and most tenacious, distending most in water, assume, even when acted upon by only a small quantity of iodine, either a violet or blue tint immediately, or at first a yellow hue, which passes afterwards into violet or blue, even before the evaporation of the liquid. Membranes that are harder, more brittle, and less distensible in water, on the contrary, take on, under the action of iodine, a yellow or brown colour, and do not shew a trace of blue, after being dried and again moistened, unless a great quantity of iodine has acted upon them.

3. The development of a blue colour is an attribute of the cellular membrane itself, and may be caused by the absorption of a sufficient quantity of iodine.

It is to chemists, says Professor Mohl, to say whether iodine colours cellular membrane by merely interposing itself between the particles of that membrane, or whether iodine and woody fibre form determinate chemical combinations, of which one is yellow and the other blue. Be this as it may, we cannot but regard these observations of the highest interest to all engaged in the study of Vegetable Physiology.

102. PHLŌMĬS *sĭmplēx.* Bentham Labiatæ, p. 634.

A herbaceous plant from the Himalayas, whence it has been introduced by the East India Company. It is described as an inhabitant of the mountains of Kunaour, and also of Pere Punjal in the kingdom of Cashmere. It grows less than a foot high, has deeply heartshaped roundish crenated leaves, a simple stem, and whorls of dull purple and hairy flowers. It is not a plant of any beauty.

103. MAXILLĀRĬĂ *placanthēră;* (Hooker in Bot. Mag. t. 3173.) sepalis lineari-oblongis obtusis intus secus medium seriatim maculatis, petalis angustioribus omninò conformibus maculatis, labelli angusti trilobi minutè pubescentis lævis laciniis lateralibus acutis nanis intermediâ dilatatâ rotundatâ cuneatâ, columnâ apice lobatâ versus basin bisulcâ pubescente, antherâ planâ acutâ.

The inspection of a specimen of this from Messrs. Loddiges convinces me that it is a species distinct from M. viridis to which I formerly referred it, although it is certainly very near it. Its flowers have however much narrower sepals and petals, are far less green, and the form of the middle lobe of the lip is distinct.

104. MAXILLĀRĬĂ *jugōsă;* flore subgloboso, sepalis oblongis incurvis obtusis, petalis conformibus concavis basi angustatis, labelli sigmoidei oblongi unguiculati pilosi jugosi lobis lateralibus nanis intermedio semicirculari, columnâ apice lobatâ bisulcâ villosissimâ, antherâ depressâ acutâ.

A Brazilian species imported by Messrs. Loddiges (no. 828.) very near M. placanthera, from which it differs in having the flower of a globose figure, with much less linear sepals and concave oblong petals narrowed to the base. These parts are of a rich cream colour speckled with crimson. The lip has quite a different form, being semicircular at the tip, deeply furrowed and closely covered with short hair. The column has two deep furrows in front almost buried in hairs. In both these plants the caudicula is obcordate with a broad membranous border, and the gland is acuminate and continuous with it, reposing upon a slit rostellum.

105. CIRRHOPĔTĂLŪM *Macræ̅ī*. Lindl. Gen. & Sp. Orch. no. 6.

This plant has been obtained from Ceylon by Messrs. Loddiges (175). It has dull brownish yellow sepals, and purple petals, which are falcate with the point turned forwards. Many of the other species are prettier.

106. ĔRĬĂ *pulchēllă*. (Lindl. in Wall. Cat. no. 7407. *Lanatæ*); pseudobulbis ovatis stipitatis diphyllis, foliis oblongo-lanceolatis obtusis, racemo lanato erecto terminali et laterali, bracteis ovato-subrotundis patentibus, perianthio explanato subæquali incano, labello subrotundo-ovato apiculato plano medio convexo discolore, basi trilineato.—Rhizoma repens, pennæ anserinæ crassitudine. Racemi 2 uncias longi. Perianthium luteum, intùs et extùs lanatum. Petala sepalis parùm minora. Labellum medio elevatum, fuscum, limbo luteo, subcordatum, apiculatum, planum. Pes columnæ luteæ rugosus, fuscus.

This little species was originally described from a specimen brought from India by Dr. Wallich, who had received it from Mr. Finlayson without a locality. It was then gathered at Sincapore by Mr. Cuming, from whom we have some fragments; and it has lately flowered with Messrs. Loddiges (204). It has oval pseudobulbs tapering at the base into a stalk and terminated by a pair of leaves about four inches long. The flowers are in spikes, which in Messrs. Loddiges specimen proceeded from the side of the pseudobulbs, but which also appear to be terminal; they are dull clayey-yellow of no great beauty.

107. MORMŌDĒS *lineātūm* (Bateman in litt.); sepalis petalisque oblongolinearibus abruptè acutis margine reflexis, labello lineari incurvo carnoso sparsim piloso versus basin utrinque dente nunc brevi nunc elongatâ aucto, columnæ dorso et margine pubescente.

This curious species is a native of Guatemala, whence it has been sent by both Mr. Skinner and Mr. Hartweg. It has dull olive-green flowers, striped and spotted with dull brown. It is very distinct from the rest of the genus, but by no means pretty. The lip has two lateral lobes which vary in length from half a line to two lines.

108. BOSSIÆĂ *paucifŏlĭă;* glabra, inermis, ramis compressis alatis, foliis paucis obovatis oblongis linearibusve, pedicellis folio brevioribus, legumine glabro latitudine pluries longiore. *Bentham mss.*

A little Swan River bush, with winged branches, a few scattered obovate leaves, and yellow and brown flowers of by no means a striking appearance. I have been favoured with specimens by R. Mangles, Esq. of Sunning Hill, and by Messrs. Lowe and Co. of Clapton, and it has also flowered in the garden of the Horticultural Society.

109. EPIDĒNDRŪM (Euepidendrum ?) *lacertīnūm;* floribus racemosis, ovariis subsecundis longissimis pendulis bracteis setaceis multoties longioribus, sepalis lanceolatis acuminatis, petalis lineari-lanceolatis, labelli adnati trilobi basi bilamellāti laciniis lateralibus triangularibus intermediâ lineari acuminatâ elongatâ, antherâ immersâ, ovario cuniculato.

A singular plant from Guatemala, for which I am obliged to Mr. Bateman. I have only seen the flowers; but as it is stated to have the habit of Galeandra Baueri it probably belongs to the section of this genus which I have called Euepidendrum. The flowers hang down on long stalk-like ovaries from one side of a short raceme. They are bright green with the exception of the column, which is yellow, and the lip which is a little stained with purple, and has very much the appearance of a lizard's tail, the hind legs being outside the flower, and the head and shoulders buried within the cup.

110. CYPRĬPĔDIŪM (5. Acaulia) *barbātūm;* acaule, foliis coriaceis acutis canaliculatis maculatis, scapo pubescente, sepalo dorsali cuspidato obtuso ciliato margine revoluto, petalis lineari-oblongis subundulatis fimbriatis margine superiore verrucoso, stamine sterili lunato pubescente.

A very fine herbaceous plant, allied to C. venustum, insigne, and purpuratum, gathered at Sincapore, on Mount Ophir by Mr. Cuming. It has flowers richly stained with purple, and streaked with green veins upon a white ground. It has flowered with Messrs. Loddiges.

111. ORNITHŎGĂLŪM (Chlorogalum) *divaricātūm;* foliis glaucis longissimis canaliculatis humifusis, paniculâ divaricatâ, perianthii laciniis linearibus undulatis apice cohærentibus mox patentibus, filamentis subulatis apice incurvis, ovarii loculis dispermis.

A Californian bulbous plant, sent to the Horticultural Society by R. B. Hindes, Esq. It has large oblong bulbs, covered with coarse brown scales; the leaves are very long, undulated, narrow and channelled, of a dull grey colour, and, being too weak to support their own weight, they lie prostrate. The flowering stem is erect, about two feet high, panicled from the base, with straggling branches bearing slender racemes of distant flowers. The latter are white, with a green stripe along the back of each division; when they expand they first adhere at the points and separate at the sides, so as to give the flower the form of a balloon; eventually they spread flat; and then in withering rise up again and cover over the ovary. The habit is not that of Ornithogalum, and, the fruit being unknown, it may not belong to the genus; especially as the ovary has only two ascending ovules in each cell. Still there is hardly evidence enough to justify the formation of a new genus. It is certainly not a Camassia or Cyanotris.

112. HELLĔBŎRŬS *orientālis.* Willd. sp. pl. 2. 1337.

At last this rare and interesting species, the genuine *ἐλλεβορος μελας* of the ancients, has been obtained for our gardens. It was received by the Horticultural Society from Mr. Sandison, H. M. Consul at Brusa, through the good offices of the Hon. W. F. Strangways. It proves very different from the Helleborus niger or Christmas rose, producing large blush flowers upon a leafy stem. It flowered in a greenhouse in February last, but is probably hardy; should it prove so it will be a valuable herbaceous plant.

113. HELLĔBŎRŬS *olȳmpĭcŭs;* foliis radicalibus palmatisectis: segmentis oblongo-linearibus serratis basi integris, caule bifloro, foliis floralibus subsessilibus, sepalis ovatis obtusis herbaceis.

This was received by the Horticultural Society with the last, to which it bears some resemblance; but the leaves are much smaller and narrower, and not pedate; moreover the flowers are green. It is nearer to H. purpurascens, but the segments of the leaves never appear to be lobed.

114. ĔRĬĂ *polyūră* (Tonsæ); caule elongato folioso, foliis lanceolatis acutis patentibus striatis, spicis oppositifoliis multifloris nutantibus foliis æqualibus v. brevioribus, bracteis ovario duplò brevioribus adpressis, sepalis petalisque ovatis acutis erectis lævibus, labello cordato ovato acuto basi bicarinato.

A Manilla Orchidaceous plant, found by Mr. Cuming, and sent to Messrs. Loddiges; it is not a species with brilliant colours, for the flowers are small and white, except a deep crimson lip; it is however a graceful plant, in consequence of every leaf producing a long drooping spike, from the opposite side of the stem. It is very near Eria multiflora and micrantha.

115. SACCOLĂBĬŪM *Blūmĕī*; foliis longis canaliculatis arcuatis acutis mucronatis racemis pendulis densifloris obtusis æqualibus, sepalis ovatis, petalis oblongis duplò angustioribus, labelli calcare compresso obtusiusculo intùs pubescente laminâ oblongâ emarginatâ utrinque costatâ.

A most beautiful species obtained from Java by Messrs. Loddiges, and in all probability the Rhynchostyles retusa of Blume. It is very near Saccolabium guttatum, but the racemes are shorter and thicker, the leaves are acute not unequally truncate, and the flowers are very differently painted; each sepal and petal has a bright streak of violet below the apex, and the lip is deeply stained with the same colour except the tip which is white. A figure has been prepared for the Sertum Orchidaceum.

116. AËRĬDĔS *Broōkĕiī*; foliis distichis obliquè obtusis racemis nutantibus multifloris duplo brevioribus, sepalis ovatis sub-acutis petalis ovalibus acutis duplo latioribus, labelli maximi laciniis lateralibus erectis acutiusculis, intermediâ 6-plo majore obsolete trilobâ rotundatâ deflexâ, calcare cornuto incurvo. *Bateman in litt.*

"This most beautiful species has lately flowered in the collection of Sir Richard Brooke, Bart. of Norton Priory, after whom I have ventured to name it. In the magnitude of its blossoms it infinitely surpasses any other species with which I am acquainted, the lip alone being upwards of an inch long, beautifully tipped with rose-colour. The other parts of the flower are of a brilliant white. In the form of the labellum the species slightly resembles

Aërides affine, but it is nevertheless so entirely distinct in other respects that it is unnecessary to contrast the species. In its habit it is stiff and erect, the leaves being only five inches long, while the racemes are more than double the length. Mr. Jones, the skilful gardener at Norton, is unfortunately unable to give me any account of the native country of the plant, but it doubtless comes from the 'gorgeous east.' I am not aware of its existing in any other collection."—J. B.

117. FŪCHSĬĂ *cordifŏlĭă.* Bentham pl. Hartweg. p. 74. no. 528.

Among the many novelties introduced by the Horticultural Society is another new Fuchsia, called the "heart-leaved" by Mr. Bentham, which although less beautiful than F. *fulgens* and *corymbiflora* is a very striking plant, its habit being much better than that of either. It has a robust branched stem, which gives it a compact bushy appearance; the leaves are broad and deep green, whilst the stems are red, and the pendulous flowers are fully two inches long, produced singly, with the tube scarlet, and the tips of the calyx and petals greenish yellow. The expectations entertained of it were rather disappointed when the first blooms were produced; but those which succeeded gained more colour, and the original plant in the Society's Garden is acquiring a very beautiful appearance. It will probably be a good species for crossing. Mr. Hartweg found it on the volcano of Xetuch, just below the peak, at the elevation of 10,000 feet above the sea.

118. PHILĂDELPHŬS *mexicānŭs.* Schlechtendahl in the Linnæa, vol. 13. p. 418. Bentham Plant. Hartweg, p. 61. no. 458.

A new hardy shrub, sent from Mexico by Mr. Hartweg, who found it at the farm called the Hacienda del Carmen. The specimen before me is little more than a foot high, grows upright, with slender branches, which are hairy when young. The leaves are small, ovate-lanceolate, acuminate, slightly downy, and rather coarsely serrated. The flowers, which are large and cream-coloured, are terminal, solitary, and delightfully fragrant. From its neatness and compactness this will probably become a favourite flower for forcing.

119. SCHOMBŪRGKĬĂ *tibīcĭnĭs* (Bateman in litt.); pseudobulbis conicis corniformibus annulatis sulcatis 3-phyllis, foliis oblongis coriaceis patentibus, scapo longissimo tereti distanter squamato apice paniculato, paniculâ pyramidali laxiflorâ, sepalis petalisque undulatis crispis, labello oblongo venis per medium 5 elevatis approximatis: laciniis lateralibus apice rotundatis intermediâ subrhombeâ emarginatâ, antherâ emarginatâ.

This noble plant, the cows-horn orchis of Honduras, has been for some years in our gardens, whither it was originally sent by Mr. Skinner. It nearly produced its flowers some time since with Mr. Bateman, but the gigantic flowering stem was accidentally broken before the blossoms expanded. Lady Acland has at last been so fortunate as to obtain it at Killerton in perfection, by the good management of Mr. Craggs, her Ladyship's gardener, and it was exhibited at the last great meeting in the Horticultural Society's Garden. The flowers when fully expanded are about two and half inches wide, a deep pink speckled with white on the outside, rich chocolate red within. The lip is white in the middle, but deep rose-colour at the sides, with a short chocolate red middle lobe. Upon the whole perhaps it disappoints the expectation formed by its huge pseudobulbs and flowering stem eight or nine feet long; but it is a very fine thing.

120. EPIDĒNDRŪM (Encyclium) *phœnĭcĕūm*; pseudobulbis subrotundo-ovatis diphyllis, foliis oblongo-linearibus erectis, scapo paniculâque scabris, sepalis petalisque subæqualibus coriaceis obovato-lanceolatis, labelli laciniis lateralibus oblongis erectis obtusis apice recurvis intermediâ maximâ membranaceâ subrotundâ undulatâ emarginatâ basi bilamellatâ, columnâ obovatâ marginatâ utrinque unidentatâ.

A noble plant from Cuba, introduced by Messrs. Loddiges. Large pseudobulbs roundish ovate and two-leaved, a panicle from two to three feet high, and large scentless flowers are its characteristics. The sepals and petals are of a leathery texture and deep purple, a little mottled with green specks both inside and out. The lip is nearly an inch and a half long, of the clear bright violet of Cattleya labiata, and with the same deep crimson veins and stains in the middle; it is much undulated, and of a thin, not leathery texture. This plant is still finer than Epidendrum macrochilum.

121. ĔRĬĂ *convallarioīdĕs.* Lindl. gen. & sp. Orch. 70.

This plant has at last been obtained by Messrs. Loddiges. It has small whitish flowers, collected in close heads in the axils of broad striated leaves ; they have no smell, and the species proves much less pretty than was expected. The specific character in the work above quoted, made up chiefly from bad Indian drawings, requires considerable correction, especially as regards the flowers, which are nearly destitute of hairs, and the lip, which is entire, and not 3-toothed. I also find that the anther is not dorsal, but merely contracts towards the back of the column, so as to expose the pollen-masses. The name *convallarioides* is unfortunate, for it can only bring to mind in India the sweet Lily of the Valley of Europe, and it is a libel on the latter to compare it with this species.

122. EPIDĒNDRŪM *ranĭfĕrūm.* Lindl. gen. & sp. Orch. no. 64.

A fine plant in the way of Ep. nutans, with large greenish flowers spotted with deep brown. It is a native of Mexico, and was imported by Mr. Barker. In some respects it disagrees with the character assigned the species in the work above quoted; but the differences arise only from the plant having been originally described from bad dried specimens.

123. EPIDĒNDRŪM (Osmophytum) *radiātūm;* pseudobulbis ovatis compressis utrinque tricostatis triphyllis, foliis angustis elongatis acutis, racemo denso multifloro, ovariis trialatis, sepalis linearibus petalisque lanceolatis patentissimis, labello cochleato crenato crispo, clinandrio trilobo laciniis lateralibus erectis carnosis intermediâ truncatâ apice serratâ.

A Mexican species, allied to E. fragrans, imported by Messrs. Loddiges. It has the same habit, but the pseudobulbs are strongly ribbed at the side, and the lip is formed like that of E. cochleatum, only the margin is crisp and crenated. The flowers are pale pea-green, with the exception of the lip, which is striated with bright deeper purple rays. It is a pretty novelty, and will no doubt become a favourite, because its cultivation may be expected to be so easy.

124. POGŌNĬĂ *plicātă.* Lindl. gen. & sp. orch. p. 415.

This little terrestrial Orchidaceous plant was found in soil from the Mauritius, and has flowered in the collection of His Grace the Duke of Northumberland at Sion. Its flowers are dull olive green, with a pale lilac labellum, emarginate at the point, rolled over the column, and strongly painted with green veins, five of which are parallel with each other and occupy the centre of the lip. The leaves, which are independent of the flowers, are plaited, dull purplish brown, and covered with soft bristles.

✓ 125. PLEUROTHĀLLĬS *breviflōră;* folio carnoso obovato-oblongo apice rotundato subtus purpurascente, floribus sessilibus paucis fasciculatis pilosis, sepalis ovatis lateralibus connatis intùs lævibus, petalis ovatis apiculatis, labello carnoso obovato lævi basi excavato pone apicem angulato et subdenticulato.

A Mexican Orchidaceous plant imported by Messrs. Loddiges, and very near P. aphthosa, with which it agrees in the colour of its flowers. The principal differences are the following; P. breviflora has, as its name implies, much shorter and broader flowers; they are more hairy; and they are destitute of the tubercles inside the sepals; the labellum is obovate, and angular, as if about to produce a tooth, on each side near the apex; finally, the leaves are obovate and stained with purple, instead of being oval and sharp pointed.

126. PHACĒLĬĂ *fimbriātă.* Michaux Flora Boreali americana, vol. i. p. 134. t. 16.

In a recent visit to the private flower nursery of Messrs. Beck, Allen & Co., I remarked this pretty new hardy annual, cultivated under the name of Cosmanthus fimbriatus. With whom the latter originated I cannot discover, nor on what ground the present species is separated from Phacelia, unless it is because of the tube of the corolla being destitute of the scales found in other species of that genus. It is a native of various parts of North America; Michaux found it on the mountains of Carolina, Pursh near Harper's Ferry on the Potowmac, and I have it from Kentucky. It forms a straggling plant with the habit of Nemophila atomaria; but it is prettier, on account of a curious glandular fringe that borders the corolla, which is lilac when first expanded and changes to white. It is a pretty addition to our hardy annuals.

127. ARGYRĒIĂ *festīvă*. Wallich plantæ asiaticæ rariores, vol. i. p. 68. t. 76.

This species has been obtained from India by His Grace the Duke of Northumberland. It is a large shrubby stove climber, with shining ovate leaves, clothed with fine brown silky hair on the under side. The flowers are pure white, and divided into five sharp rays, but they do not appear likely to be very showy, since they are small for a Convolvulaceous plant, and in the specimen which flowered at Sion, formed small cymes, but little branched. Possibly, however, this may improve as the plant gets stronger; in Dr. Wallich's figure the flowers are represented as forming a loose panicle, and if this habit should be gained the plant will become much more showy. According to M. Choisy this species is a native of China, and the same as Argyreia acutifolia of Loureiro.

128. EPIDĒNDRŪM (Encyclium) *pterocārpŭm*. Lindley in Hooker's Journal of Botany, vol. 3. p. 82.

A singular species from Mexico which has lately flowered with Mr. Barker. It has a long thin raceme of pinkish yellow flowers, and a heart-shaped lip streaked with crimson. It is remarkable for the seed-vessel, when ripe, being extended into three broad sharp wings.

129. EPIDĒNDRŪM (Encyclium) *articulātŭm*. Klotzsch in Allgemeine Gartenzeitung, Sept. 22, 1838.

This species has also flowered with Mr. Barker. It is in the way of Epidendrum pastoris, but it is readily known by its lip having the middle lobe furnished with a triple row of tubercles, among which are intermixed many small projections.

130. LINDĒNĬĂ *rivālĭs*. Bentham Plantæ Hartwegianæ, p. 84. no. 581.

Under this name Mr. Bentham has proposed a new genus of Cinchonaceous plants, resembling Tocoyena in the form of the flower, but corresponding with Augusta or Portlandia in the nature of its fruit. It forms a beautiful bush with flowers as long as those of Oxyanthus. Mr. Hartweg, found it near Vera Paz, and seeds were sent home, but they have not yet produced plants. The following is Mr. Bentham's character of the genus.

LINDENIA rivalis, gen. nov. Rubiacearum — Rondeletiarum. — Char. gen. Calycis tubus turbinatus, 5-costatus; limbus 5-partitus laciniis angustis acutis. Corolla hypocrateriformis, tubo longissimo tenui æquali; limbo 5-partito, laciniis oblongis patentibus æstivatione imbricatis. Antheræ 5, lineares, sessiles ad corollæ sinus. Stylus filiformis, a basi glaber, apice incrassatus, brevissime bifidus, lobis intus stigmatiferis. Capsula (junior) laciniis calycinis coronata, bilocularis, placentis centralibus. Semina numerosissima, angulata. Frutex 2-3-pedalis, tam habitu quam characteribus Augustæ affinis, corollæ forma generice distinctus. Folia ad apices ramorum approximata, opposita, breviter petiolata, oblongo-lanceolata, acutiuscula, integerrima, basi angustata, juniora præsertim ad venas uti ramuli et petioli pube brevi tomentella, adulta supra fere glabra. Stipulæ utrinque solitariæ, latæ, subulato-acuminatæ, fusco-membranaceæ, in vaginam brevem connatæ, deciduæ. Corymbus terminalis, condensatus, pauciflorus. Bracteæ oblongo-lineares, ovario paullo longiores. Flores subsessiles. Calycis tubus per anthesin 3-4 lin. longus; laciniæ anguste lineares 5-6 lin. longæ. Corollæ tubus 5-5½ lin. longus, tenuis, pubescens; laciniæ limbi pollicares.

131. GODĒTĬĂ *albēscēns;* caule annuo subfruticoso, ramis brevissimis congestis, foliis albido-glaucis lanceolatis integerrimis glabris, floribus sessilibus densissimè inter folia superiora aggregatis, calycis tubo infundibulari laciniis æquali, petalis obcordatis immaculatis calyce duplò longioribus, stigmatis lobis ovatis virescentibus, fructu oblongo 8-sulcato acuminato tereti villoso.

A new hardy annual from the Columbia river, whence they were received by the late lamented Mr. Moreton Dyer. The species is very distinct from any of those found by Douglas, but is related to G. viminea. It forms a close cluster of short branches, which quite weigh down the stem, half-woody and fleshy though it be, and as thick as the fore-finger. The leaves are very glaucous. The flowers are pale lilac, without any spot, and the fruit is covered with long hairs. The lobes of the stigma are green; the habit is almost that of Œnothera densiflora.

132 GODĒTĬĂ *grandiflōră;* caule erecto, foliis lanceolatis subdenticulatis virescentibus glabriusculis, calycis tubo obconico laciniis duplò breviore, petalis albis basi rubescentibus vix maculatis calyce multò longioribus, antheris pallidis linearibus, stigmatis laciniis linearibus lutescentibus, fructu lineari 4-sulcato tereti pubescente.

Another new Godetia, also an annual, and from the same parcel of seeds as the last. It has larger flowers than any other I have seen, and forms as handsome a bush as G. Lindleyana, only it wants the deep red blotches of that species. It is quite distinct from both Lindleyana, vinosa, and rubicunda, and approaches most nearly to G. roseo-alba. Both this and the last have been raised in the Garden of the Horticultural Society.

133. RIGIDĒLLĂ *immaculātă*. Herbert.

Rigidella; Lindl.—Observ. Sepala ungue cymbiformi recto dextrorsum (a germine aspicienti) imbricante laminâ reflexâ, petala valdè minora recta ungue brevi lineari laminâ latiore, antheræ in columnâ stamineâ sessiles stigmatum tenuium lobos binos interpositæ loculis lateralibus. Flores penduli postmeridiani fugaces, ab horâ nonâ circ. ad primam noctis patuli.

R. *immaculata;* sepalis acutis 1⅜ unc. longis coccineis ungue pallidiore petalis luteis laminâ cordatâ acuminatâ, columnâ stamineâ superne gradatim minore, antheris acutis inferne latis stigmata tenuia æquantibus, polline luteo.

Sp. Flammeâ minor immaculata, in specimine nostro uniflorà. *W. Herbert.*

A curious little bulb from Guatemala, where it was found by Mr. Hartweg.

134. TIGRĪDĬĂ *violācĕă;* infirmior, minor; caule apice dichotomo; foliis ensiformibus, plicato-nervosis, læte-viridibus, angustioribus; spatha externa albo-marginata, floribus minoribus, violaceis, campanulatim-rotatis; perigonii foliolis interioribus ad marginem faucis transverse-plicato-appendiculatis; stigmatibus bipartitis, lobis subulatis. *Link. Klotzsch & Otto, t.* 20.

A pretty little bulbous plant, with rich purple flowers, almost the colour of those of Sisyrinchium grandiflorum. It has been found by various travellers in Mexico, and has been raised in the Botanic Garden of Berlin. It requires the same cultivation as Tigridia Pavonia.

135. OLĪNĬĂ *acumĭnātă;* ramulis gracilibus, obtuse-tetragonis, gilvo-fuscescentibus, glabris; foliis minoribus, subcoriaceis, oblongis, acuminatis, basi attenuatis longitudinaliter excavatis, supra nitidis, subtus pallide-viridibus; floribus terminalibus, densissime-cymosis; filamentis saturate-roseis. *Link. Klotzsch & Otto, t.* 21.

A greenhouse shrub, with narrow lanceolate leaves, pale green flowers, and dull red berries. It is a native of the Cape of Good Hope. Not handsome.

136. PRŌTĔĂ *longiflōră;* ramis elongatis, rubescentibus, junioribus villosis; foliis oblongis, sessilibus, basi subcordatis, apice brevissime acutis, margine lanato-ciliatis, summis lana sericea secedente utrinque obductis; involucro turbinato, bracteis dense-imbricatis, exterioribus brevioribus, sordide virescentibus, sericeis, margine lanato-ciliatis, intimis elongatis, obtusis, albidis, versus apicem margineque sericeo-ciliatis; perigonio pistilli longitudine, apice albido-barbato, infra apicem glabro, inferne tetragono, fulvo-hirto; stylo glabro; stigmate longitudinaliter sulcato. *Link, Klotzsch & Otto, t.* 22.

A Cape greenhouse shrub, with oblong hairy green leaves, and heads of flowers, the involucral leaves of which are also of a clear light green, becoming larger and almost white in the inside. It was found by Zeyher in South Africa, and put into circulation by Ecklon.

137. HIGGĪNSĬĂ *mexicānă;* ramulis teretibus, subglabris, petiolisque purpurascentibus; foliis oppositis, obovatis, acutis, basi attenuato-cuneatis, subglabris, pendulis; pedunculis axillaribus, solitariis, 3-8 floris; corollis flavido-rubentibus, limbo recurvo; genitalibus candidis; baccis coccineis. *Link, Klotzsch & Otto, t.* 23.

A greenhouse shrub, with ovate lanceolate sharp-pointed leaves, and small cymes of axillary yellow flowers. It was raised in the Berlin garden from seeds which sprang up in the earth in which Mexican plants had been imported. In the summer it does very well in the open air; but it must have a greenhouse for winter. It belongs to the Natural order Cinchonaceæ.

138. OLĪNĬĂ *cymōsă;* ramulis obtuse-tetragonis, cinereo-fuscescentibus, strictis; foliis obovatis, apice emarginato-apiculatis, basi attenuatis, planiusculis, margine leviter undulatis, supra amœne-viridibus, subtus pallidioribus; cymis in apice ramulorum axillaribus; bracteis rhombeis, basi subattenuatis, intus glabris; filamentis albidis. *Link, Klotzsch & Otto, t.* 24.

A greenhouse bush, with obovate obtuse leaves, and small axillary clusters of whitish flowers. The fruits are a dull reddish green, like unripe Hawthorn fruit. From the Cape of Good Hope, and of little interest. Only known in the Berlin garden.

139. SCUTELLĀRĬĂ *splendens;* caulibus adscendentibus, ramosis, pubescentibus; foliis longe-petiolatis, late-cordato-ovatis, brevi-acutis, rugulosis, deflexis, læte-viridibus, grosse-dentatis, utrinque villoso pubescen-

tibus, floralibus parvis, subovatis, utrinque attenuatis, serrulatis, e viridi-violaceis, glanduloso-puberulis, deciduis; racemis elongatis, simplicibus calycibusque violaceis, glanduloso-puberulis; floribus sparsis; corollis saturate-cinnabarinis, puberulis, calyce sextuplo longioribus; antheris glabris, basi glandulis candidis sessilibus ornatis; acheniis minutissime echinulatis. *Link, Klotzsch & Otto, t.* 13.

This is a decidedly fine plant, with cordate, crenated, rugose leaves, covered with hairs and on long stalks, and producing terminal racemes of tubular, slender scarlet flowers an inch long. Their colour is as nearly as possible that of Gardoquia Hookeri. It has flowered in the Botanic garden, Berlin, and is described as a perennial, 1½ foot high. Its native country is Mexico, whence it seems to have been first obtained by Mr. J. H. Böckmann, Nurseryman, Hamburgh. No doubt a hardy greenhouse plant.

140. BÆCKĔĂ *Camphorōsmæ.* Endlicher in Hugel's Enum. p. 51.

A very pretty greenhouse shrub from Swan River, with slender heath-like leaves, collected in clusters, and light pink cup-shaped flowers arranged along the sides of the naked drooping branches. It has been raised by Mrs. Wray, of Cheltenham, to whom we are indebted for a specimen. It received its name on account of its resemblance to the European genus Camphorwort (Camphorosma).

141. MAXILLĀRĬĂ *barbata;* pseudo-bulbis inæqualitèr quadrangularibus, corrugatis, vaginatis: foliis ovatis, costatis, acutis: floribus racemosis; sepalis inæqualibus, petalis majoribus, lateralibus explanatis, apice sub-involutis; labello cucullato, trilobato, barbato, margine crispo, apice gibboso, disco carnoso. *Phytologist, p.* 7.

"Pseudobulbs quadrangular, wrinkled; at the apex of each is a cup-like cavity, which surrounds the base of the leaves when present; sheaths twice as long as the pseudo-bulb. Leaves solitary, ovate, ribbed, acute. Scape arising from the base of the pseudo-bulb, slender, smooth, and about six inches high. Flowers about eight, yellow, disposed in a raceme. Bracts about two lines long, brown and scarious at the edges, and closely embracing the peduncle. Peduncle about one inch long. Sepals unequal, yellow, involute at the apex, the lateral ones spread out, the upper one more or less connivent. Petals obtuse, of the same colour as the sepals, but much smaller. Labellum bearded, cucullate, three-lobed, and having a fleshy excrescence on the disk; darker in colour than the sepals and petals, and marked in the centre and on the lateral lobes with a dark purple spot. Column short and minutely pubescent on the back, in the upper part. Stigmatic cavity angular, membranous and three-lobed, the central lobe subulate. Clinandrium entire. Caudiculæ two, distinct. Gland transverse. Pollen-masses compressed, sulcate. Anther-case one-celled, and minutely pubescent like the column."

"This species in habit, in the form of the pseudo-bulbs, and in the foliage, is very similar to *Max. tetragona*, but the flowers are altogether different, and bear resemblance to those of *Max. aureo-fulva*, Hook., figured in the 'Floral Cabinet,' ii. plate 83." *l. c.*

This plant appears to be identical with M. vitellina. With respect to its supposed double caudiculæ I must, however, observe that they are no more than the elastic centre which holds the pollen-masses of all Orchidaceous plants of the Vandeous division to their common caudicula, and that they are very different from those truly double caudiculæ, properly so called, which exist in Bifrenaria.

142. MAXILLĀRĬĂ *purpurāscēns*; pseudo-bulbis ovatis vel conicis, sulcatis: foliis duobus, lineari-lanceolatis, apiculatis: floribus solitariis, glabris; sepalis æqualibus, lanceolatis, apiculatis, supremo connivente, lateralibus labello parallelis: petalis conniventibus, linearibus, sepalis brevioribus; labello trilobato, margine purpureo maculato, glabro, disco carnoso; antherâ subpubescente. *Phytologist, p.* 8.

"Rhizoma growing along the top of the pot and sending off pseudo-bulbs, which are ovate or conical and furrowed. Leaves two, about four inches long, linear-lanceolate, and pointed at the apex. Scape about six inches high, smooth, tinged with purple and bearing a solitary flower at the apex. Flower smooth, internally yellow, externally purple. Bracts about half an inch long. Sepals about an inch long, apiculate at the apex; the lateral ones arranged parallel with the labellum, the upper one connivent over the petals and column. Petals much smaller and shorter than the sepals, and as long again as the column. Labellum smooth, three-lobed, the middle lobe recurved at the margin, the apex of the lateral lobes beautifully spotted with purple. Column smooth. Clinandrium smooth or slightly pubescent. Stigmatic cavity round. Caudiculæ two. Gland transverse, crescent-shaped. Pollen-masses two, each of which is divided into two distinct parts. Anther one-celled, somewhat compressed and slightly pubescent."

"This species is very different in habit from the preceding. It possesses a creeping rhizoma, which throws out ovate or subconical pseudo-bulbs from its upper surface; the leaves are also much narrower, and the scape is of a pleasing purple colour. In size and form the flowers nearly resemble those of *barbata*, but are solitary and of a different colour. *Maxillaria aureo-fulva*, *barbata* and *purpurascens* possess double caudiculæ (as is the case also in the genus Bifrenaria) and their inflorescence in other respects differs so much from that of any other species of *Maxillaria* with which I am acquainted, that they may be considered as forming a very distinct group of the genus.—Fred. Westcott."

Introduced from Brazil for the Birmingham Horticultural Society, by W. Fry, Esq. in 1840. This plant I have not seen and do not recognize.

143. EPIDĒNDRŪM (Encyclium) *tripunctātūm;* pseudo-bulbis ovalibus compressis diphyllis, foliis ligulatis tenuibus apice recurvis scapo bifloro pluriès longioribus, sepalis patentissimis lineari-oblongis, petalis duplò angustioribus, labello semiadnato obovato rugoso utrinque ultra columnam emarginato, columna atropurpurea apice triloba et luteo tripunctata.

For this very distinct new species I am indebted to Richard Harrison, Esq. of Aighburgh. It has long grassy leaves, and a very short two-flowered scape. The sepals are twice as broad and much larger than the petals; both of them are widely spreading and a dull yellow green. The column is deep purple, with three lobes, each of which is tipped with one pale orange-coloured spot. The lip is rather more than half an inch long, obovate, rugose, without being warted, and distinctly emarginate near the apex of the column; its colour is pale citron. Ep. hastatum is the species to which this seems to approach most nearly.

144. POLY̆GŌNŪM *mŏllĕ.* Wallich cat. no. 1685.

A half-shrubby herbaceous plant from the North of India, introduced by the Hon. Court of Directors of the East India

Company. It forms a bush with pale green lanceolate leaves, taper-pointed, stalked and covered with soft hairs, especially on the underside, which do not however give it at all a grey appearance. The stipules are long, membranous, and strongly veined. The flowers are small and white, and are produced profusely in close panicles at the end of the branches.

145. EPIDĒNDRŪM *Grăhamī;* pseudo-bulbis ovatis diphyllis, scapo terminali, racemo plurifloro, perianthio patente, sepalis latò-linearibus, petalis spathulatis, labello trilobo basi longè bilamellato, laciniis lateralibus ovatis acutis, intermediâ rotundatâ crispatâ, columnâ apice utrinque dente obtuso, antherâ profundè sulcatâ. *Botanical Magazine, t.* 3885.

This is stated to be a native of Mexico, and to have flowered in the Botanic Garden, Edinburgh. It has a white lip streaked with crimson veins, and a yellowish-green calyx, and corolla stained with dull purple at the ends. I do not see how it differs from Epidendrum altissimum, except in being a small imperfectly formed specimen. All the panicled Epidendrums are simply racemose when weak, and *vice versa.*

146. HYMENOCĀLLĬS *panamēnsĭs;* foliis erectis acuminatis loratis margine pallidis, scapo ancipiti, umbellâ multiflorâ, floribus sessilibus, tubo 6-pollicari, limbi laciniis 4-pollicaribus, coronâ obconicâ liberâ inter stamina obtusè dentatâ.

A beautiful fragrant plant, sent from Panama by J. Cade, Esq., H. M. Consul in that country. It has erect leaves with a slight white border and a tapering point. The scape is rather more than a foot high and two-edged. Ten or twelve flowers grow in an umbel, with a tube six inches long, green at the lower part, white at the upper. The limb is white, with linear segments four inches long. The coronet is quite white, obconical, plaited, and with one blunt tooth between the stamens. The filaments are green ; the anthers deep orange colour. This appears to be quite different from all the species hitherto described, but nearest to H. Harrisii, whose scape is only compressed and not two-edged, and whose flowers are smaller. It has flowered in the Garden of the Horticultural Society.

147. STANHŌPĔĂ *Martiana.* Bot. Register, 1840, misc. 109.

Among some Orchidaceous plants collected in Mexico by

M. Galeotti, this rare plant has flowered in the collection of Richard Harrison, Esq. of Aighburgh. It agrees extremely well with the character and description given by Mr. Bateman in the place above quoted; to which I may add that the epichilium is strictly linear, the two edges being as nearly as possible parallel with each other, and not a great deal broader than the column; a mark by which the species is immediately recognized.

148. EPIDĒNDRŪM (Spathium) *bisētūm;* racemo nutante, sepalis obovato-oblongis obtusis, petalis setaceis, labelli trilobi laciniis lateralibus subcuneatis retusis intermediâ bilobâ basi tuberculis tribus munitâ, ovario scabro.

A native of Guatemala, imported by the Horticultural Society, and flowered by Messrs. Loddiges. It is a plant allied to Ep. nutans, with much smaller flowers, more compactly arranged, and with a strong smell of cowslips. The ovaries are rough with elevated points, the sepals are brownish orange, the lip dull fawn colour. The petals are in the form of two fine bristles.

149. BĒRBĔRĬS *trifoliātă;* (Hartweg in litt.) sempervirens, glauca, erecta, fruticosa; foliis trifoliolatis, foliolis ovatis sessilibus sinuato-spinosis acuminatis: venis lacteis, baccis sphæricis.

This most beautiful evergreen shrub has been raised from seeds collected in Mexico by Mr. Hartweg, and has been distributed by the Horticultural Society. I fear it will not prove hardy, but even if requiring a greenhouse it yields to no species in cultivation. The flowers are unknown. The leaves are on long slender stalks, and have three leaflets which are perfectly sessile; each of the latter is glaucous, of an ovate form, with spiny sinuosities, and delicate pale veins like those of the milk-thistle. It is a plant of great rarity, and will long remain so from the difficulty of propagating such plants. Mr. Hartweg found it on the road from Zacatecas to San Luis de Potosi: an immense plain occupied chiefly by Opuntias, stunted plants of Prosopis dulcis, and Yuccas; it covered large tracts of country.

150. LYSIMĂCHĬĂ *lobelioīdēs;* (Wallich mss.) caulibus ascendentibus, foliis oppositis ovatis subserratis breviter petiolatis, racemis terminalibus nudis

multifloris, floribus nutantibus, corollis campanulatis quinquepartitis sepalis acutis paulò longioribus, staminibus exsertis, capsulis sphæricis.

A pretty little perennial rock-plant, introduced from the North of India by the Hon. Court of Directors of the East India Company. Its stems are densely leafy and rise gracefully upwards in a curved manner. The flowers are white, nodding, with pale pink veins, and are placed in naked racemes at the ends of all the branches. The stamens project beyond the corolla. This has flowered abundantly in the Garden of the Horticultural Society.

151. LINĀRĬĂ *venōsă;* perennis, ascendens, foliis linearibus canaliculatis subcarnosis albido-glaucis, floribus laxè racemosis (fusco-luteis atrostriatis), sepalis brevibus linearibus obtusis, calcare corollâ breviore, palato adpresso pubescente.

A new perennial from the North of India, introduced by the East India Company. It has very narrow pale glaucous leaves, and dull yellowish brown flowers painted with dark lines. It is near L. odora, and macrura, but seems different from both. Its seeds will be described hereafter, if they are produced.

152. CONVŌLVŬLŬS *scopārĭŭs.*

I have just received from Mr. Barker Webb the following interesting communication concerning this curious and little known plant, a figure of which was given last month, fol. 43.

"I have just seen in your number of the Botanical Register for this month, the very characteristic figure you have given of *Convolvulus scoparius.* Not being acquainted with the fruit, you could not assign to it a precise position amongst the convolvulaceous genera. I had long since (11 years ago, in the Canary Islands) prepared for it the outlines of a group I call *Rhodorhiza,* and do not see any reason at present to change my opinion. I enclose the characters of this new genus with a few remarks, as some months may elapse before the Convolvulaceæ can appear in the Phytographia Canariensis.

"RHODORHIZA *Gen. nov.* Calyx 5-phyllus, 2-bracteolatus, post anthesin immutatus. Corolla campanulata, limbo plano. Stamina 5, imo corollæ tubo inserta, subinclusa Ovarium conicum, apice attenuatum, 2-loculare, 4-spermum. Stylus simplex aut subnullus. Stigmata filiformia, teretia, vel in 1 solubile coalita. Capsula 1-locularis (abortu), 1-2-sperma, evalvis, demùm à basi ad apicem irregulariter dehiscens. Semina ovato-conica, erecta. Embryo perispermo mucilaginoso immersus. Cotyledones contortuplicatæ, in laminas 2 tæniæformes divisæ. Radicula infera, recurva."

"Frutices aut suffrutices Canarienses; erecti vel diffusi, foliis alternis vel sparsis, linearibus vel lanceolato-linearibus, integerrimis; floribus ad apices ramorum latè paniculatis, vel axillaribus, pedunculatis, pedunculis 1-multifloris."

"The genus Rhodorhiza is distinguished from Convolvulus principally by its one-celled, and one or two-seeded capsule, the dehiscence of which when thoroughly ripe, takes place irregularly from the base upwards, its valves being obliterated. These characters of the fruit bring it near to *Porana*, Burm., but it has neither the calyx enlarged after flowering of that genus, nor its two large round stigmas seated on the summit of a long simple style, slightly bifurcated at its extremity. Rhodorhiza forms a small group remarkable for its habit, the types of which are Convolvulus floridus and scoparius, and to these I unite R. glandulosa, n. sp., which differs from them both by its simple style, easily separated however into two branches, but its stigma is not capitate as in Porana.

"The roots of both the original species are fragrant, and yield the so-called oil of Rhodium by simple distillation; though the first in a less degree, or sometimes, when young, scarcely any. The original *lignum rhodium*, or *ρόδια ρίζα* of Dioscorides, which came from Macedonia, was certainly Linnæus's Rhodiola rosea, figured as such by Parkinson in his Theatrum Botanicum, after Lobel. 'It grows,' he says, 'in the very raggiest places on the mountaines of Pangle and Ingleborough.' Soon after the discovery of the Canaries, this name was transferred to Convolvulus scoparius, and afterwards to several American plants. It is called in the Islands Leña Noël, a corruption of Lignum aloes, and though now in little request, large quantities of it were formerly exported, and the plant nearly extirpated. The apothecaries in Europe sold it both as Lignum rhodium and as the Aspalathus of Dioscorides. It soon however lost this latter name, which was handed over to a wood brought from India, though the original Aspalathus was a thorny leguminous shrub growing on the shores of the Mediterranean, probably Spartium villosum, according to Sibthorp, still called by the Greek ’Ασπάλατος or ’Ασπαλάθεια."

[It seems probable that this name Aspalath was applied by the Greeks to several spiny leguminous plants, especially

Cytisus lanigerus and Genista acanthoclada; see Fl. Græca, vol. x. p. 84.]

153. HÆMĀNTHŬS *magnĭfĭcŭs* (Herbert mss.); foliis viridibus 14-uncialibus 3-4-unc. latis undulatis glabris, scapo compresso viridi subpedali $1\frac{1}{4}$ unc. lato, petiolorum et scapi basi minutè et rarò (bracteis pallidè) punctatis, spathâ multivalvi viridi patulâ, umbellâ hemisphæricâ $5\frac{1}{2}$ unc. diametr. numerosissimâ confertâ, pedunculis brevibus pallidis, perianthii tubo $\frac{3}{8}$ unciæ longo subinfundibuliformi subvirescenter albido limbo pallidè coccineo (in externis semi-patulo in cæteris compressione erectiore) laciniis $\frac{3}{4}$ unc. long. angustis linearibus apice crasso albo, stylo acuto unciali pallidè coccineo filamenta concoloria subæquante, polline flavo, fructu subcoccineo. W. H. *Synon.* H. puniceus *v.* magnifica. *Herb. in Bot. Mag.* 3870. *p.* 2.

"This splendid Hæmanthus was imported from South Africa by Messrs. Loddiges, and sent by their liberality to Spofforth, where it has twice flowered in the green-house. It approaches very near to H. puniceus, though very superior in beauty, but it seems rather to form a link between that plant and the species with patent flowers, viz. tenuiflorus, multiflorus, and Abyssinicus. The chocolate-coloured marking of the bract-like envelopes, and the base of the stalk and petioles, is nearly obsolete in this plant, and appears only in a few small speckles. In Abyssinicus the spots are abundant and intense, in tenuiflorus the sheathing of the petioles forms a taller and slenderer spotted column with the aspect of H. multiflorus. The immense number and contiguity of the flowers makes it almost impossible to represent the inflorescence of this beautiful plant correctly by a drawing. The plant is easily cultivated, and deserves a place in every greenhouse, though, perhaps, it will now be found only in Messrs. Loddiges' rich collection."—W. H.

154. STIGMAPHȲLLŌN *ciliātūm.* Ad Juss. Synops. Malp. p. 42. no. 7.

This climbing plant from Brazil has lately flowered with His Grace the Duke of Northumberland at Sion. It has heart-shaped ciliated leaves, of a firm texture and with a shining surface. The flowers are in axillary umbels, rather large, and bright yellow. It is a handsome stove plant.

155. PEDICULĀRĬS *pyramidātă* (Royle in Benth. Scroph. ind. p. 52.); erecta, elata, subsimplex, caule superne quadrifariam piloso, foliis pinna-

tifidis, laciniis oblongo v. lineari-lanceolatis obtusiusculis serrato-crenatis subpinnatifidisve, spicâ densâ v. basi interruptâ, calycibus hirsutis, dentibus brevibus acutis integerrimis, rostro lineari contorto galea ipsa duplo longiore.

This species of Pedicularis is a native of the North of India, and has been raised in the Garden of the Horticultural Society from seeds presented by the East India Company. It is a hardy perennial, and unlike most of its genus, appears to be cultivated without difficulty. It has pinnated leaves in a whorl of four, spikes of lively purple flowers, with a singularly long twisted beak to the corolla. It differs from P. gracilis and from P. tenuirostris by the long twisted galea, from P. pectinata chiefly by the form of the segments of the leaf. Dr. Royle found it in the Himalayas towards Cashmere.

156. HEMIĀNDRĂ *emargināt̆a ;* caule erecto, ramis patuli spatentim pubescentibus, foliis lineari-oblongis complicatis pungentibus 3-nerviis secus nervos marginemque pilosis, calycibus subsessilibus villosis : laciniis subæqualibus pungentibus, corollæ laciniis superioribus rotundatis emarginatis.

A pretty little herbaceous plant, related to Westringia, raised by the Horticultural Society from New Holland seeds presented by Sir George Murray. It forms a small bright green bush, with rigid pungent leaves, and nearly sessile flowers, whose corolla is nearly white, with a few pink spots upon it. From H. brevifolia of Bentham it differs in having the segments of the calyx equal to each other, and from H. hirsuta in the form of the leaves, and in the lobes of the calyx being pungent. It is a greenhouse plant.

157. EUCALȲPTŬS *calophȳllă ;* foliis alternis ovato-lanceolatis petiolatis marginatis parcè punctatis nunc acuminatis nunc obtusis cum mucrone : venis primariis simplicibus pennatìm dispositis contiguis subparallelis, umbellis terminalibus et axillaribus 4-5-floris pedunculatis, operculo minimo hemisphærico umbonato hinc cupulæ c. cardine affixo.

The name of E. calophylla is current in gardens for this beautiful plant, but I cannot discover it in books. It is a native of Port Augusta on the South-west coast of New Holland, whence its seeds were sent to Capt. Jas. Mangles, R.N. by Mrs. Molloy, a lady enthusiastically fond of flowers, to whom we are indebted for many acquisitions. Its branches are of a rich reddish brown. The leaf-stalks, which are rather more than an inch long, are of the same colour. The leaves are from four to six inches long, ovate-lanceolate, flat, pale green, with a rich red marginal line, within which, at the distance of a quarter of a line, runs a faint intramarginal vein; when bruised they have a faint and rather pleasant smell; very few transparent dots are visible; the veins are delicate lines, almost at right angles to the midrib, from three-fourths to one and a half lines asunder, and running somewhat parallel till they lose themselves in the intramarginal vein; they are held together by fine reticulations. The whole appearance of the foliage is that of a Calophyllum. The flowers are large and white; the cup is obconical, six lines long, and as much across the mouth; the lid however is only half that diameter and hangs to the edge of the cup on one side, by a narrow neck, so that it cannot fall off; this arises from the cup continuing to enlarge after the separation of the lid.

158. HĀKĔĂ *ruscifŏlĭă.* Labillard. Nov. Holl 1. 30. t. 39. R. Brown in Linn. Trans. 10. 186. prodr. 585.

Although this plant was introduced many years ago it may be as well to mention that it has again been raised from New Holland seeds, collected near Swan River, and is in many gardens without a name. It forms a low grey bush, thinly covered with long white feeble hairs; the leaves are narrow oblong, tapering to the base, and extended at the point into a spine of variable length. The flowers are pure white, with a faint smell of honey, and grow in dense umbels shorter than the leaves. In the form and size of the foliage this plant seems to be greatly influenced by climate, the leaves becoming small and the spine long as the air is hot and dry, or long and large, with a short spine, as it is cool and damp. Age too has no doubt an effect upon the species in this respect. It is a good greenhouse shrub.

159. ROSCŌĔĂ *lūtĕă.* Royle's Illustrations of the Himalayas, p. 361. t. 89. fig. 2.

Mr. Rogers received the roots of this Scitamineous plant from Northern India two or three years ago; they were mixed with those of Orchidaceous plants. He finds it flower and flourish very well in the greenhouse, during the summer, ripening seeds in abundance. According to Dr. Royle it is found in Mussooree and elsewhere in the Himalayas during the rainy season. It is a herbaceous plant, with leaves like those of Ginger. Its flowers are pale buff, and appear in terminal spikes; the bracts and calyx are purple. It is not a plant of much beauty.

160. ONCĪDĬŪM *monŏcĕrās*. Botanical Magazine, t. 3890.

This does not appear to be different from O. unicorne.

A Flora of North America, containing abridged descriptions of all the known indigenous and naturalised plants growing north of Mexico, arranged according to the Natural System. By John Torrey and Asa Gray. Vol. II. Part I. 8vo. New York, May 1841. London, Wiley & Putnam.

We have on former occasions (1839 misc. p. 42. 1840 misc. p. 79) expressed a high opinion of this most useful work, recommending it strongly to all Botanists, as by far the most complete and exact account of North American plants. It is now therefore only necessary to state that the part lately published fully maintains the reputation of its predecessors. We shall confine ourselves to an enumeration of what it contains.

The part begins with the Caprifoliaceous order; and of course the North American Honeysuckles are critically examined; altogether 15 species are mentioned, among which are some new ones chiefly from Oregon and the Arkansas. Lonicera (Caprifolium) albiflora, has small glaucous leaves and white flowers; L. californica is a new species from Monterey, with pale yellow flowers; Viburnum nitidum, cassinoides, pyrifolium and squamatum, are all regarded as forms of V. nudum; V. oxycoccus, edule and opuloides are shewn to be mere forms of the European V. opulus.

Rubiaceæ are made to contain both Galiaceæ and Cinchonaceæ; to the latter of which the Southern States have furnished some additions in the form of Spermacoceous plants, and several of the higher forms of the order, such as Chiococca racemosa, Psychotria lanceolata, Morinda Royoc, &c.; most of which have apparently reached the main land from the West India Islands. Loganieæ are also included in Rubiaceæ, we think injudiciously, and a remarkable new genus, called Cœlostylis, is added, from Florida and Texas.

Of Valerianaceous plants 16 species are mentioned, some of which belong to Valerianella, here called Fedia.

Of Dipsaceæ but one species has been found, and that the Dipsacus sylvestris of Europe.

The whole of the remainder of this part of Drs. Torrey and Gray's work is occupied with Compositæ, which extend to the end of DeCandolle's Astereæ, comprehending therefore the difficult genus Aster. The genus Liatris has been studied with care, and some additions have been made to it; nevertheless the species are reduced to 19, partly in consequence of the separation of the genus Carphephorus, and partly from the abolition of several so called species; L. intermedia is referred to L. squarrosa; L. stricta to cylindracea; L. lævigata to tenuifolia; L. pauciflosculosa to gracilis; L. virgata, pilosa, dubia, and turbinata to graminifolia; L. resinosa to spicata; L. brachystachya to pycnostachya; L. sphæroidea, borealis, heterophylla, squarrulosa and aspera to scariosa. Similar reductions are made in Eupatorium and other large genera; but it is in Aster that we find most to remark upon.

This genus, whose species most abound in the United States, has been subjected to several dismemberments by modern Botanists. Galatella, Sericocarpus, and Diplopappus are adopted by our authors, who add the Dieteria of Nuttall for some pinnatifid species; but they reject Biotia, Tripolium, we think unadvisedly, for the two latter genera are surely as well characterised as Galatella at least. It is in the genus Aster, strictly limited, that occur those crowds of varieties, mules, sports, species, or whatever else they may be called, which originating, or at least appearing for the first time, in European gardens, have successively exercised the ingenuity of garden Botanists, from Willdenow and Nees down to DeCandolle. Our authors have not only had good materials for study, but have also been able to profit by the experience of those Botanists who have preceded them; they have judiciously employed these means, confining themselves to the plants known to be really wild, and thus avoiding those sources of error which are almost certain to exist among species domesticated for many years. The result of their examination has been to reduce the species very considerably, sometimes in all probability with reason, as in the case of A. spectabilis, ericoides, and miser, but in other instances with doubtful justice, as in the instances of A. dumosus from which

A. coridifolius at least is surely quite distinct, and of A. patens to which A. patentissimus can by no means be referred. Moreover some supposed new species are added from the collections of wild plants in the authors' hands. Upon the whole, the genus Aster may be regarded as well arranged; but we fear it is still a long way from being settled. The probability is that a very large proportion of the forms, whether wild or cultivated, are inconstant, and no one has yet succeeded in obtaining a clue to the discovery of the limits within which the variations take place.

We trust the sale of this work will remunerate the authors for their long and arduous task; it is by far the best flora of North America that has ever appeared; indeed there are few works upon the vegetation of any country more valuable for systematic accuracy; and it is quite indispensable to all working botanists.

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161. TRITELĒIĂ *aūrĕă;* foliis linearibus virentibus, spathâ obtusâ bivalvi 5-florâ pedicellis filiformibus triplò breviore, perianthii ferè 6-partiti laciniis aureis estriatis lineari-lanceolatis, staminibus fauce tubi brevis insertis.

A small bulbous plant, about the size, and with the habit, of Allium striatum. The flowers are deep yellow, and destitute of the stripe down the middle of the segment, which is usual in the other species. It has lately flowered with Capt. Sulivan, who brought it from Monte Video, and communicated it to Sir C. Lemon, Bart. at Carclew.

162. MORMŌDĒS *aromătĭcūm;* sepalis petalisque ovatis acuminatis secundis concavis, labello angustè cuneato convexo laciniâ intermediâ triangulari acuminatâ cucullatâ, columnæ dorso subulato.

I can hardly say whether this is really distinct from Mormodes pardinum, not having a specimen at hand for comparison. It is, however, very different in colour and general appearance, having a pale pinkish ground sown thickly with dull wine-red specks. It is a Mexican plant, specimens of which have appeared in several collections. That before me is from Messrs. Loddiges. The flowers have a powerful odour like that of aromatic vinegar.

163. EPIDĒNDRŪM (Euepidendrum) *latilābrūm;* foliis ovatis obtusis brevivaginantibus internodiis sæpè brevioribus, sepalis petalisque angustioribus lineari-oblongis obtusis patentibus, labello repando sublobato emarginato ferè 4-plò latiore quam longo, pedunculis bifloris sessilibus.

A Brazilian plant, allied to Epidendrum umbellatum, of which it has the habit. But its lip, which is four times broader than long, and curved downwards on each side, so as to bear no little resemblance to a stiffly starched lady's apron, gives it a most singular appearance. I have long been acquainted with it through specimens in Sir W. Hooker's Herbarium; that now before me is from the collection of Messrs. Loddiges.

164. EULŎPHĬĂ *squālĭdă;* foliis lato-ensiformibus 5-nerviis, spicâ multiflorâ floribus inferioribus remotioribus, bracteis ovatis acuminatis ovario acutangulo brevioribus, labello oblongo trilobo laciniis rotundatis intermediâ crispâ emarginatâ calvâ venis pluribus parallelis elevatis, calcare brevi, antherâ obsoletè emarginatâ,

A terrestrial Orchidaceous plant of no beauty, brought home by Cuming. It has leaves like those of a Bletia, and a stout erect scape 1½ foot high, with dingy pallid flowers, the lowermost of which are very remote from the uppermost The lip has no appendages, but is strongly marked by elevated veins, and it is entirely confluent with the column at the base. Lately flowered by Messrs. Loddiges.

165. DENDRŌBĬŪM (Eudendrobium) *excīsūm;* foliis lineari-oblongis obliquè retusis, floribus (solitariis ?) oppositifoliis basi squamatis, sepalis petalisque acuminatis, labello oblongo acuto carnoso basi utrinque exciso: disco latè glanduloso, cornu pedicello ferè duplò breviore.

A small species with the habit of D. pulchellum, but with white inconspicuous flowers. It is a native of Sincapore, whence it was brought by Mr. Cuming. It has flowered with Messrs. Loddiges (No. 331). The nearest affinity is with D. revolutum and calcaratum.

166. BOLBOPHȲLLŪM *clandestīnūm;* rhizomate repente squamis membranaceis cucullatis vestito distanter pseudo-bulbifero, pseudo-bulbis minimis 1-2-phyllis, foliis mucronulatis oblongis carnosis dorso convexis,

floribus minimis geminis è squamis rhizomatis, sepalis clausis ovatis æqualibus in setam mollem productis, petalis ovalibus obtusis, labello angustè ovato obtuso lævi, antherâ 1-loculari, polliniis 2.

A very curious, but inconspicuous little Orchidaceous plant from Sincapore, which has flowered with Messrs. Loddiges. It is a form of the genus Bolbophyllum, in which the pseudo-bulbs almost disappear, and the flowers are only just protruded from among thin withered scales, with which the rhizoma is covered. It appears to be allied to B. tortuosum, a plant however which I have never seen. The minute flowers are very pale straw-colour, with the ends of the sepals lengthened into a soft yellow bristle. The leaves are hard, thick, and rounded at the back. The whole habit of the plant is that of some creeping Fern, such as Marginaria (Polypodium) piloselloides.

167. FŪCHSĬĂ *rādĭcāns;* (Miers in litt.) caule prostrato radicante, foliis ellipticis acuminatis denticulatis glabris basi cordatis, floribus axillaribus geminis pendulis, alabastro subrhombeo quadrangulari, petalis cuneatis tubo calycis vix longioribus, stigmate capitato, baccâ subrotundo-oblongâ.

This curious plant is now in many gardens, having been liberally distributed by Mr. Miers, its discoverer in the woods of Brazil. It has *a creeping stem,* which roots like Ivy, and thus acquires a habit very unlike that of the other species. The flowers are very like those of F. macrostema, and including the stamens are 2½ inches long. A full account and figure of this remarkable plant will presently be published in the Register.

168. CATASĒTŪM *fuliginōsūm;* C. tridentati vultu, sepalis petalisque oblongis acutis reflexis, labello cucullato carnoso integerrimo v. minutè serrulato patente, columnâ brevi ecirrhosâ apice in setam productâ, antherâ parvâ (effœta ?).

This singular plant has lately flowered at Sion, in the possession of His Grace the Duke of Northumberland. Its habit is quite that of C. tridentatum, but its flowers are in a dense erect raceme, and of a deep green colour, spotted with a dull blackish purple, so as to look as if they were soiled with soot. The sepals and petals are spotted, oblong, acute, and reflexed, so as to hang downwards. The lip, on the other hand, is fleshy, hooded, stained with pale purple, and either entire at the margin, or very slightly serrated; but it does not cover over the column as is usual in the hooded Catasetums: on the contrary it spreads away at almost right angles. The column itself is short, deep green, and produced at the point into a straight bristle, in front of which is placed a small and imperfect anther. In this masquing genus it is impossible to say what is a species and what is not. Judging by rules found good in other genera this is quite distinct from all species previously described; judging from the evidence we possess concerning C. tridentatum, cristatum, and viride, we should suspect it to be a male form of C. atratum, or some such species. That, however, must remain for future enquiry.

169. DENDRŌBĬŪM *secūndūm*. Botanical Register, t. 1291.

A specimen of this pretty plant, which has recently flowered with Mr. Knight of the King's Road, has given me an opportunity of examining its structure carefully, and it proves so remarkable as to deserve especial notice. In the first place the lateral sepals and the base of the lip are so united into a spur, that their separate nature is entirely concealed towards the point of the spur. In the next place the rostellum is a deep two-lobed lip curved down over the stigmatic surface. The pollen-masses are in two pairs, and deep purple; and, which is extremely curious, they lie upon a loose hard transverse crustaceous gland, which seems to replace the gland and caudicula of Vandeæ, and which projects beyond the anterior edge of the anther, resting upon the two-lobed rostellum. The anther-bed itself is deeply excavated, and three-lobed, the anther adhering to the back lobe which is the narrowest.

170. LOBĔLĬĂ *pyramidālĭs*. Wall. DeCand. Prodr. 7. 381.

A herbaceous plant from the Himalayas of no beauty. It has narrow, lanceolate, finely serrated leaves, and greenish-violet flowers, so embosomed among long green leafy bracts that they are hardly distinguishable by a passer-by. The tube of the stamens stands back aloof from the corolla, and of the latter the two dorsal petals are quite free down to their base.

171. DENDRŌBÌŪM *Cambridgeānūm;* (Paxton's Mag. Bot. vi. 265.) caulibus pendulis medio incrassatis, foliis ovalibus acutissimis, pedunculis bifloris, petalis lanceolatis sepalis latioribus, labello cucullato rotundato indiviso supra piloso.

This plant is only known to me from the figure in Mr. Paxton's Magazine of Botany. It is said to be a native of the Khoseea hills of India, whence it was brought to Chatsworth by Mr. J. Gibson in 1837; it was found at an elevation of 4000 feet, attaching itself to rocks and trees. It is a beautiful species, with large rich yellow flowers, having a deep purple stain in the middle of the lip; but seems very near D. Paxtoni and chrysanthum.

172. NIPHǢĂ *oblōngă.*

Among some extremely fine herbaceous plants sent to the Horticultural Society from Guatemala by Mr. Hartweg, is one with a dwarf stem, hairy, fleshy, oblong serrated leaves, like those of a Gloxinia, and bearing a cluster of large snow-white flowers at the summit of the stem, which is undivided. It proves to be a new Gesneraceous genus, differing from all those in Gesneraceæ proper in having the rotate corolla of a Ramonda, and from Gloxinia, to which it approaches most nearly, in the want of perigynous glands, and of a gibbosity at the base of the corolla. It will be figured shortly in this work; in the meanwhile the following short character will sufficiently define the genus.

NIPHÆA. Calyx superus æqualis 5-partitus. Corolla rotata, laciniis subæqualibus, duabus superioribus paulò minoribus. Stamina 4 fertilia subæqualia, quintum carnosum deforme. Glandulæ perigynæ 0. Stigma simplex.——*Sp.* 1. Niphæa *oblonga.* Hirsuta, simplex, foliis oblongis, cordatis, dentatis, rugosis. Flores candidi, axillares terminalisque, cernui.

173. CIRRHOPĔTĂLŪM *maculōsūm;* floribus geminis solitariisque, sepalo supremo oblongo acuto lateralibus lineari-oblongis obtusis margine anteriore pone basin uniplicato, petalis sepalo supremo brevioribus oblongis obtusis, labello ovato obtuso convexo apice recurvo, columnâ bidentatâ? (polliniis 4 subæqualibus).

This is an Indian species of Orchidaceous plant, sent to Messrs. Loddiges by Dr. Wallich (158), with the habit of Bollophyllum affine, or leopardinum, but with the long lateral sepals of a Cirrhopetalum. It has the flower-stalks and flowers of a very pale green, finely speckled with dull purple. The lateral sepals are nearly an inch long, and have a single fold on their inner margin near the base. The species has little beauty.

174. ONCĪDĬŪM *Barkĕrī;* pseudobulbis ovalibus compressis parum angulatis diphyllis, foliis angustis erectis membranaceis manifestè petiolo vaginante articulatis racemi cernui simplicis pedunculo brevioribus, sepalis liberis petalisque lanceolatis undulatis æqualibus patentibus, labelli lobis lateralibus parvis subquadratis intermedio transverso apice inflexo vix emarginato, tuberculo oblongo basi 2-dentato apice obsoletè trilobo anticè excavato, columnæ alis brevibus rotundatis.

A fine species, imported from Mexico by Mr. Barker. It has very large flowers of a clear but pale yellow on the lip, and rich brown spotted sepals and petals. The lip is of unusual size, being more than one inch and a half across. It is readily known by its short leaves having a distinct articulation, with a sheathing petiole nearly an inch long. The raceme is simple, drooping, of five or six flowers, and altogether a foot long.

175. ONCĪDĬŪM *nebulōsūm;* pseudobulbis ovalibus ancipitibus nebulosi diphyllis utrinque 3-costatis, foliis angustis chartaceis paniculâ angustâ brevioribus, sepalis liberis petalisque lanceolatis undulatis patentibus, labelli lobis lateralibus nanis rotundatis intermedio subrotundo bilobo, tuberculo sulcato tridentato utrinque unidentato, columnæ elongatæ alis acinaciformibus denticulatis.

A fine species, with something the appearance of O. reflexum, but readily known by its clouded pseudo-bulbs. The flowers are large, rather pale yellow, with faint spots of brown at the base of the lip and on the sepals and petals. It is a native of Guatemala, whence it has been sent to the Horticultural Society by Mr. Hartweg.

November, 1841.—*L.*

176. PŎTHŎS *podophyllus*. Schlechtendahl & Chamisso in Linnæa, vol. 6. p. 22.

When Mr. Hartweg landed in Mexico, on his mission from the Horticultural Society, he had the good fortune to make the acquantance of Mr. Lavater, a gentleman resident near Vera Cruz, who hospitably entertained him. At his residence, a few miles from that sea port, a rich harvest of novelties awaited our young traveller; and among many other things the rare *Berberis tenuifolia, Cyrtochilum maculatum, Brasavola glauca,* all at that time new, rewarded his researches. Since that time a case of living plants has been received from Mr. Lavater, among which is this fine Pothos; whose leaves have stalks a foot and more in length, and a circular blade more than a foot in diameter, divided into seven deep pinnatifid or entire acuminate lobes, the lateral of which are three-parted. They are of a firm texture, of a sea-green colour, and but little marked by other veins than the midrib. The flower-stalk is like the leaf-stalks, and of the same length, but is compressed and bluntly two-edged instead of being channelled along one side. The spadix is dull olive green, about five inches long, and slightly tapering to the point; while the spathe is three times as short, oblong, green, and turned downwards. It appears to be the species above quoted, which was found by Deppe and Schiede in shady woods near the Hacienda de la Laguna, in Mexico; differing in no important circumstance, unless in the leaves being rather less frequently divided.

177. CLERODĒNDRŌN *splendens*. George Don in Jamieson's Journal, vol. 11. p. 349.

Of the many beautiful climbing plants inhabiting the woods of Sierra Leone, and of which so few are yet in cultivation, this is one of the best. Its foliage is of a deep rich green, and the flowers of a colour not inferior to that of the Euphorbia splendens. It will be a stove plant, but one of the very handsomest in the country. It has flowered with Mr. Knight, at his Nursery in the King's Road, where it had been sent by Mr. Whitfield. According to the author of the name, it grows on the mountains of the Colony.

178. CŒLŎGY̆NĒ *coronārĭă;* pseudobulbis teretibus angustissimis diphyllis, foliis lanceolatis acuminatis undulatis coriaceis obsoletè trinerviis racemi pedunculo basi tantum squamato longioribus, bracteis setaceis apice sphacelatis, labelli lobis rotundatis lateralibus planis intermedio undulato, cristæ lamellis crispis in lobum intermedium 5 in hypochilium 4 tantum geminatis, clinandrio trilobo, antherâ antice rotundatâ fornicatâ.

A pretty species of this interesting genus, from the Chirree district of the Khosea hills of India, where it was found by Mr. Gibson, when in that country on his botanical mission from his Grace the Duke of Devonshire. It has firm, bright-green, not shining, leaves of a leathery texture, and very pale greenish yellow flowers, whose lip has a yellow centre, and a border beautifully streaked, and spotted with crimson. We shall take an early opportunity of publishing a figure of it.

179. ĔRĬĂ *bipunctātă ;* (Tonsæ) caulibus ovalibus compressis, foliis lanceolatis acuminatis 11-nerviis, racemis axillaribus cylindraceis multifloris, bracteis ovatis acuminatis reflexis, alabastris globosis, sepalis petalisque ovatis obtusiusculis, labelli trilobi lævis laciniis lateralibus intermedio carnoso convexo rotundato angustioribus.

This plant was found by Mr. Gibson in the same locality as the last, and flowered with it at Chatsworth. It has the flowers of a Liparis, and the foliage of an Eria, so far as general aspect goes. The stems are flat, oval, partially covered by the sheaths of fallen leaves, when full blown between two and three inches long; at first they are green, but they become when old of a light purplish brown colour. The leaves, in size and form, are very like those of Eria floribunda, to which this species is nearly allied. The flowers are arranged in cylindrical drooping racemes, rather shorter than the leaves; they are perfectly free from downiness, except just at the base of the raceme, and are about the size of a grain of pepper, very pale, yellowish white, with the tip of the column purple, and the point of the labellum deep yellow, by which means the flowers seem as if they had two spots upon them when they are looked at from the front.

180. CYRTOCHĪLŪM *graminifŏlĭūm ;* Lindl. in Annals of Natural History, vol. 4. p. 384.

This plant, which resembles C. maculatum in habit, but has a yellow lip, the form of which is that of a wedge, with rounded angles, has flowered with Messrs. Loddiges, who imported it from Oaxaca (No. 1265). It is most nearly allied to C. filipes, figured in the present number, but differs in the form of the lip.

181. EPIDĒNDRŪM (Encyclium) *calocheīlūm*; pseudo-bulbis ovato-oblongis apice diphyllis, foliis ensiformibus obtusis coriaceis obsoletè striatis paniculâ elatâ multiflorâ brevioribus, sepalis petalisque lineari-oblongis spathulatis uniformibus patentissimis, labello libero suborbiculari profundè trilobo basi carinato, lobis lateralibus latè ovatis intermedio latissimo lineato margine undulato crispato, columnâ supernè hinc alâ obtusâ. *Hooker in Bot. Reg. t.* 3898.

A Guatemala plant, from the Woburn collection, very near Epidendrum altissimum, but apparently distinct. The flowers, in a large panicle, are light greenish yellow with the sepals and petals tinged with purple at the points, and the lip crimson-veined with a yellow border.

182. PLEUROTHĀLLĬS *pīctă*; folio oblongo coriaceo caule vaginato racemoque longiore, spathâ diphyllâ, racemo plurifloro, sepalis reflexis inferiore trilineato extus basi villoso duobus superioribus ultra medium unitis maculatis, petalis columnâ longioribus ovato-lanceolatis, labello ovato carnoso velutino maculato obtuso intus basi profundè canaliculato, clinandrio dentato, anthera ovarioque pubescenti-tomentosis. *Hooker in Bot. Reg. t.* 3897.

A Mexican Orchidaceous plant, with purple flowers arranged in a spike about one-third the length of the leaf. It is very near *P. strupifolia* and *aphthosa* (which latter is the P. peduncularis of Hooker's Journal of Botany, vol. 3. t. 9.) but apparently distinct from both.

183. DȲCKĬĂ *altīssĭmă*; foliis acuminatis recurvo-patentibus distanter spinosis glabris, scapi tomentosi (orgyalis) squamis acuminatis integris, spicâ elongatâ dissitiflorâ, bracteis acutis sepalis rotundatis brevioribus.

A native of Buenos Ayres, whence it was sent to the Glasgow garden by Mr. Tweedie. It has a flowering stem fully six feet high and slender, but the leaves are barely a foot long. The flowers resemble those of D. rariflora in colour, but are less brilliant. It is a rather pretty greenhouse plant, and flowered in the Garden of the Horticultural Society in October, 1841.

MR. FRANCIS BAUER'S SALE.

We find that the effects of this lamented artist are to be sold by auction on Wednesday, November 24th, by order of his Executors; and we invite the attention of our readers to the fact. The inimitable skill of Mr. Bauer as a delineator of flowers is well known from report: few persons however have enjoyed the advantage of studying the unrivalled specimens which his pencil produced. The sale now announced will disperse among the lovers of art all that remains which the public can acquire, and in a few days the British Museum will be the only public institution where they can be examined. Even now the sketches and drawings announced for sale are very few in number, not exceeding forty lots, which comprehend a few hundred sketches and finished drawings: they will however be found to comprehend a mass of invaluable facts observed by Mr. Bauer during his long life, and bearing upon many interesting parts of Botany and Vegetable Physiology. We observe that in addition to the drawings of Mr. Francis Bauer are a good many by Ferdinand Bauer, whose skill as an artist ranked still higher than that of his brother.

Enchiridion Botanicum exhibens classes & ordines Plantarum accedit nomenclator generum et officinalium v. usualium indicatio. Auctore Stephano Endlicher, M.D. 8vo. Black and Armstrong.

This important work is an admirable accompaniment to the author's Genera Plantarum, already noticed in our last and preceding volumes, 1839, (p. 40, and 1840, p. 31), and completed a few months since. It is an Introduction to the study of Systematical Botany, upon the plan of our own Introduction to the Natural System, written in Latin, in a pure style, and explaining the author's views upon arrangement, and the affinities of genera up to the latest period. Each article comprehends—1. a general description of the order of plants treated of; 2. a list of the genera and their synonyms which it includes; 3. a view of its natural affinities; 4. a sketch of the geographical distribution of the species; and 5. a very full account of the uses to which the species are applied in medicine or otherwise. The work is preceded by a brief view of the system of arrangement adopted by the author, and terminates with a very long and complete index. The whole volume contains 763 pages.

The following table will explain Dr. Endlicher's views of arrangement. It will be seen that he commences with the lowest forms of organization, and ends with the highest.

Region 1. THALLOPHYTA. Opposition of stem and root o. Neither vessels nor sexual organs. Germinating spores lengthening in any direction.

Sect. 1. Protophyta. Born without soil; absorbing food from all sides, forming fructifying organs vaguely.

1. *Algæ.* 2. *Lichenes.*

Sect. 2. Hysterophyta. Born on dying or dead organized matter, absorbing food internally from a matrix, expanding all their organs at once, perishing at definite periods. Infancy obscure. Spores naked or in asci.

3. *Fungi.*

Region 2. CORMOPHYTA. Stem and root opposed to each other. Vessels and distinct sexual organs of propagation in the more perfect.

Sect. 3. Acrobrya. Stem growing at the point alone, the lower part not changing and attracting food.

Cohort 1. *Anophyta.* Vessels none. Both sexes present. Spores free within sporangia.

4. *Hepaticæ.* 5. *Musci.*

Cohort 2. *Protophyta.* Bundles of vessels, more or less perfect. Male sex absent. Spores free within one or many-celled sporangia.

6. *Equiseta.* 7. *Filices.* 8. *Hydropterides.* 9. *Selagines.* 9. *Zamiæ.*

Cohort 3. *Hysterophyta.* Sexes perfect. Seeds without embryo, with many spores. Parasites.

11. *Rhizantheæ.*

Sect. 4. Amphibrya. Stem growing at the circumference. Vegetation circular.

12. *Glumaceæ.* 13. *Enantioblastæ.* 14. *Helobiæ.* 15. *Coronariæ.*
16. *Artorhizæ.* 17. *Ensatæ.* 18. *Gynandræ,* 19. *Scitamineæ.*
20. *Fluviales.* 21. *Spadicifloræ.* 22. *Principes.*

Sect. 5. Acramphibrya. Growing both at the point and the circumference. Vegetation circular and terminal.

Cohort 1. *Gymnosperma.* Ovules naked. Foramen receiving impregnation.

23. *Coniferæ.*

Cohort 2. *Apetala.* Ovules covered. Cal. o, rudimentary or simple, herbaceous, or coloured.

24. *Piperitæ.* 25. *Aquaticæ.* 26. *Julifloræ.* 27. *Oleraceæ.*
28. *Thymelaceæ.* 29. *Serpentariæ.*

Cohort 3. *Gamopetala.* Ovules covered. Cal. and Cor., the latter monopetalous, rarely deficient by abortion.

30. *Plumbagines.* 31. *Aggregatæ.* 32. *Campanulinæ.* 33. *Caprifolia.*
34. *Contortæ.* 35. *Nuculiferæ.* 36. *Tubifloræ.* 37. *Personatæ.*
38. *Petalanthæ.* 39. *Bicornes.*

Cohort 4. *DIALYPETALÆ.* Ovules covered. Cal. and Cor., the latter polypetalous or monopetalous, with its parts sometimes held together by the stamens; sometimes abortive.

40. *Discanthæ.* 41. *Corniculatæ.* 42. *Polycarpicæ.* 43. *Rhœades.*
44. *Nelumbia.* 45. *Parietales.* 46. *Peponiferæ.* 47. *Opuntiæ.*
48 *Caryophyllinæ.* 49. *Columniferæ.* 50. *Guttiferæ.* 51. *Hesperides.*
52. *Acera.* 53. *Polygalinæ.* 54. *Frangulaceæ.* 55. *Tricoccinæ.*
56. *Terebinthinæ.* 57. *Gruinales.* 58.*Calyciflorœ.* 59. *Myrtifloræ.*
60. *Rosifloræ.* 61. *Leguminosæ.*

As a specimen of the style and matter of this excellent work, the following may be selected as an example. It is an extract from the characters, &c. of the Lobeliaceous order.

AFFINITAS. Ordo Campanulaceis arctissime affinis, ab iisdem vix nisi corolla irregulari et antheris constanter connatis diversus, succi lactei præsentia, corollæ elementis inæqualiter coalitis, antheris cohærentibus et stigmate bilobo, pilorum colligentium peculiari apparatu munito, ad Cichoraceas, Compositarum subordinem propius quam reliquæ Campanulinæ accedens, suam classem cum Aggregatis naturali vinculo nexam demonstrat. A Goodeniaceis corollæ æstivatione et indusii stigmatici defectu, a Stylideis staminum numero et iisdem a stylo distinctis facillime distinguuntur.

GEOGRAPHIA. Lobeliacearum, quotquot hodie in botanicorum catalogus relatæ sunt, sexta circiter pars cis cancrum habitat, reliquæ per regiones tropicas et hemisphærii australis plagam extratropicam tali ratione dispersæ sunt, ut pari fere numero per Americam et veterem orbem distributæ, in Novo Continente frequentius inter circulos tropicos, in Africa et Asia multo copiosius trans capricornum nascantur. Borealium plurimæ Americam incolunt, aucto versus æquatorem specierum numero; Europa et Asia borealis paucissimas alit, harum una (*Lobelia Dortmanna* Linn.) in regionibus subarcticis amphigea, altera (*Lobelia sessilifolia* Lamk.) in Kamtschatka vivit. America specierum suffrutescentium imprimis est feracissima, imminuto trans circulum tropicum specierum numero. Africæ promontorium australe plurimas alit, specierum herbacearum potissimum copia, in majore generum varietate, Americæ tamen cedens. Pauciores Novæ Hollandiæ oram circumcolunt, unde nonnullæ in Novam Zeelandiam evagantur, typo cum capensibus convenientes. Asiæ æquinoctialis terra continens et insulæ continenti vicinæ Lobeliacearum minime feraces, paucas proferunt. Has inter *Piddingtonia nummularia* DC. in Nepaliæ et Javæ montibus reperta, *Pratiis* Americam antarcticam incolentibus affinitate proxima, reliquæ *Lobeliæ*, generis latissime diffusi, typum referunt.

Plures, in multa generum naturalium fructu indehiscente inter se convenientium varietate, in insularum Sandwicensium regione montana, nubibus madida et imbribus irrigua, sylvestres generantur, subarborescentes, foliorum coma terminali palmiformes, grandifloræ, copioso lacte squallentes. His facie similem archipelagus Taitense *Sclerothecam arobeam* Alph. DC., insula St. Helenæ *Trimerim oblongifoliam* Presl. (Milkwood) et Abyssinia alpestris *Rhynchopetalum montanum* Fresen. (Gibarra) alit. Plurimæ loca depressa, muscosa, humentia et paludosa v. arenam littoralem amant, paucæ in editos montes adscendunt, ex his *Lysipomata*, dehiscentia operculari singularia, in editissimis Andium peruanorum jugis, et *Heterotoma*, genus paradoxum, in frigidissima Mexicanorum regione habitant. Species vix non omnes endemicæ, capenses aliquot in Nova Hollandia, unam etiam in Chili, repertas fuisse perhibent. *Lobelia Cliffortiana* Linn. per regiones calidas totius orbis ab homine dispersa.

Qualitates et Usus. Lobeliaceæ fœtæ sunt succo lacteo, vehementissime acri et narcotico, qui cutem corrodit et ore absumtus intestinorum inflammationem, vomitum et alvi fluxum provocans, bestias et hominem brevi interimit. Venenatissimis plantis itaque accensendæ, nonnullæ tamen a medicis transatlanticis inter cautissimi usus pharmaca admissæ, imo ad nos transvectæ fuerunt. *Lobelia urens* Linn., in Europa occidentali et australi indigena, pecoribus exitiosa, ob plantæ raritatem vix inter virosas nostrates nominari solet. *Tuparum* chilensium (Tupæ Feuillei Don , Tupæ Berterii DC., Tupæ salicifoliæ Don.) deleterium virus. Florum halitum naribus tractum vomitum ciere perhibent. *Isotomatis longiflori* Don. (Lobeliæ longifoliæ, Linn., vulgo *Preventa Caballos*) maxima inter plantas venenatas in Antillis fama est. *Lobeliam inflatam* Linn. (vulgo Eye-bright et Indian Tobacco) a medicis borealiamericanis inter remedia expectorantia et diaphoretica admissam, atque imprimis in asthmate curando prædicatam, incautius administratam ægros necasse constat. *Lobeliæ syphiliticæ* Linn. radix acris et emetica, ab Americæ borealis autochtonibus adversus syphiliticum morbum cum fructu sumta, et diu inter gentis secreta habita, postquam ære ab Anglis emta medicis innotuit, multis prædicata encomiis, a prudentioribus hodie seponitur. *Lobeliæ Cardinalis* Linn. radicem anthelminthicam putant.

E *Siphocampyli Cautschouk* Don. lacte gummi elasticum in Peruvia parari, *Centropogonis surinamensis* DC. baccas comedi relatum est.

We can only state, in conclusion, that this work is indispensable to every one who studies Botany systematically, and that it is a storehouse of information for those who merely require a work of reference for general facts.

Chamælaucieæ. Commentatio Botanica auct. Joann. Conrad. Schauer. Wratislaviæ, 1841. 4to.

It is some years since Mr. Schauer announced his intention of examining critically, for the purpose of publication, the little known group of Fringe-myrtles, called, botanically, by the unspeakable word above quoted. Almost all the species being of New Holland origin, it was necessary to apply to Botanists in this country for assistance, and we find that a large part of the materials used by the author was supplied by the lamented traveller Mr. Allan Cunningham, whose collections were ever open to all engaged in scientific research ; for he knew nothing of the selfishness and jealousy that cast a heavy shade over the scientific reputation of some Botanists. It is gratifying to find that the work which has at length appeared is in all respects worthy of Mr. Schauer, and of the liberality with which he has been treated by his correspondents.

The Fringe Myrtles are only known in gardens by the genus Calytrix, or as Mr. Schauer writes it, Calycothrix, of which a few species have occasionally appeared in curious collections, and one has been figured in this Botanical Register, t. 409. They are however common bushes in New Holland, when not in blossom looking like small heaths, and remarkable for the singular structure of their flowers, whose parts are generally fringed with long slender hairs or teeth; whence the English name we have proposed for them instead of that of Cha-mæ-lau-ci-e-æ.

Fifty-nine species are enumerated, disposed in eleven genera. The genera Polyzone and Hedaroma are reduced to Genetyllis; and Chrysorrhöe, familiar to many of our readers on account of the figure published of it in the Appendix to the Botanical Register, is regarded as a form of Verticordia. Well may the latter name have been given to some of these charming plants, for nothing more lovely could ever have been found by the poets as a type of the goddess Venus. We understand that some of the species are at last in our collections, although they have not flowered; and we cannot too strongly urge those who are in communication with Swan River to possess themselves of these most beautiful plants.

184. BROMHĒADĬĂ *palūstrĭs.*

When Mr. Finlayson was in the Malay archipelago, he found a curious Orchidaceous plant at Sincapore with the habit of Epidendrum elongatum; and from specimens of it, almost destroyed by insects, which I examined some years since in Dr. Wallich's herbarium, I referred it with great doubt to Grammatophyllum, under the name of G. Finlaysonianum, (*Gen. & Sp. Orch. t.* 173.) This plant has lately flowered at Penllergan in South Wales with J. D. Llewelyn, Esq. who received it from Cuming, with the memorandum that it had been "dug out of a bog in Sumatra." Having now had the advantage of examining a perfect specimen in flower, I find that although nearly allied to Grammatophyllum, it is in fact very distinct. I therefore avail myself of the opportunity of adding to the list of genera the name of Sir Edward Ffrench Bromhead, Bart. F.R.S. whose investigations of the natural affinities of plants are well known to systematical Botanists. It may be distinguished by the following character.

Perianthium (candidum) sesquipollicare, cylindracco-connivens, laciniis omnibus lineari-oblongis curvis canaliculatis obtusiusculis. *Labellum* cucullatum, trilobum, c. columnâ omninò parallelum, basi inarticulatum; (laciniâ intermediâ retusâ flavescente disco luteo-glandulosâ, lateralibus ovatis brevioribus violaceis; axi elevatâ pubescente). *Columna* latè alata, obtusa, carnosa. *Anthera* 2-locularis, longitudinaliter dehiscens, dorso conica et cum columnâ articulata. *Pollinia* duo, reniformia, posticè excavata, in glandulam latam triangularem membranaceam sessilia.——Herba parasitica, caulescens, ebulbis. Folia disticha, oblongo-linearia, emarginata. Spica terminalis, disticha, flexuosa, multiflora, longè pedunculata, bracteis brevissimis, rigidis, dentiformibus.

In appearance the plant has the aspect of Epidendrum elongatum, as has been already stated; and like it has the whole of the upper part of the stem provided with closely pressed distant sheaths instead of leaves, on which the spike of flowers is arranged. The latter is very rigid, between two and three inches long, regularly zigzag, with a short hard tooth-like bract at each bend, so that the spike without the flowers resembles a coarsely-toothed narrow doubled-edged saw. The flowers are about an inch long, white, and rather drooping, not spreading open, but with the divisions converging in a cylindrical manner. The labellum, in which alone any colour resides, is yellow in the middle, straw-coloured on the middle lobe, and violet at the tips of the lateral lobes.

As a genus Bromheadia is distinctly characterized by its broadly winged column, which is parallel with the labellum, and its contiguous pollen-masses. Its habit too is very peculiar.

185. SĀLVĬĂ (Calosphace longifloræ coccineæ) *excēlsă;* caule herbaceo elato pubescente, foliis petiolatis ovatis acuminatis serrato-crenatis basi rotundato-cuneatis membranaceis supra glabriusculis subtus pallidis puberulis, racemo elongato, verticillastris bifloris, foliis floralibus bracteæformibus calyces subæquantibus deciduis, calycis tubulosi viridis labio superiore integro, corollæ coccineæ villosæ tubo calyce plus duplo longiore subincurvo superne ampliato labiis subæquilongis.——Readily distinguished from its allies by the constantly biflorous verticillasters.—*Bentham in litt.*

This new Sage has been flowered in the garden of the Horticultural Society, where it was introduced from Guatemala by Mr. Hartweg. It grows ten or twelve feet high, has broad deep green leaves, and very angular stems. The flowers are in naked racemes, from four to six inches long, and are of a rich crimson; but they drop so soon after opening, that we fear this species will not prove very useful for gardening purposes. Its great size also forms another objection to it. The flowers, however, when gathered are handsome.

186. PLEUROTHĀLLĬS *gĕlĭdă;* folio oblongo carnoso concavo basi attenuato caule tereti laxè 1-ochreato æquali v. longiore, spicis geminis erectis secundis folio subæqualibus e spathâ brevi univalvi exsertis, floribus cylindraceis, sepalis carnosis intus pilosis lateralibus semiconnatis, petalis minimis glabris subrotundo-oblongis apice denticulatis, labello etiam breviore lineari cuneato bilamellato apice rotundato plano, columnâ petalis breviore.

A plant with all the habit of Pl. racemiflora, but the spikes appear in pairs, and are hardly so long as the leaf, and the structure of the flowers is different. The whole plant is fully a foot high. Messrs. Loddiges obtained it from Jamaica.

187. PLEUROTHĀLLĬS *sicārĭă;* folio oblongo angusto plano in caulem triplò longiorem triquetrum canaliculatum deorsùm attenuatum angustato, pedunculis brevibus 2-3-floris cernuis aggregatis, sepalis lineari-lanceolatis patulis chartaceis lateralibus ad apicem usque cohærentibus sed facilè separabilibus, petalis ovalibus acutissimis serratis, labello lanceolato acutissimo bilamellato utrinque unidentato, clinandrio serrato.

A native of Trinidad. In habit this species is most remarkable, its stem being exactly like a bayonet blade (sica) with the point downwards. It grows nearly a foot high. The flowers are greenish yellow with pale purple stripes along the sepals, much deeper stripes on the petals, and none at all on the labellum.

188. PLEUROTHĀLLĬS *fragĭlĭs;* folio ovato-oblongo plano carnoso caule compresso canaliculato duplò breviore, pedunculis aggregatis brevibus (2-floris) folio adpressis, floribus carnosis fragilibus glaberrimis, sepalis lateralibus ad apicem usque cohærentibus supremo lineari recto, petalis cuneatis apiculatis columnæ apice denticulatæ subæqualibus, labello lineari apice rotundato basi utrinque paululum dilatato et denticulato superficie lævigatâ.

This little plant has the habit of P. prolifera; but its leaves are flat, not folded together, and it is not proliferous. The flowers are bright orange-yellow, and very brittle, like wax; with a double row of minute purple dots along the middle of the labellum. Messrs. Loddiges have obtained it from Rio (11).

189. EPIDĒNDRŪM (Encyclium) *virgātūm* (Lindl. in Hooker's Journ. of Botany, v. 3. p. 83.); pseudobulbis ovatis oblongisve sub-compressis

rugosis, foliis binis ternisque convexis subundulatis acutis glaucis unciam latis, paniculâ virgatâ ramis longis gracilibus, sepalis lanceolatis petalisque duplo angustioribus patentibus discoloribus, labelli hastati lobis lateralibus acutis patentibus intermedio subrotundo-obovato acuto; callo maximo rotundato pone basin.

A free-growing Epiphyte with the habit of E. vitellinum, but with more glaucous leaves. Its flowers are small, dirty green stained with brown, arranged in a very long lax graceful panicle, the branches of which are simple, and sometimes as much as a foot long, with nearly twenty flowers on each. The lip is whitish yellow. It has flowered in the garden of the Horticultural Society, from plants sent from Mexico by Mr. Hartweg. It was first found near Teoxomulco, in the province of Oaxaca, by Karwinski.

190. GESNĒRĂ *longĭfŏlĭă;* caule herbaceo crasso tereti tomentoso, foliis oppositis et subalternis petiolatis lanceolatis crenato-serratis utrinque angustatis, pedicellis ad axillas foliorum summorum fasciculato-verticillatis unifloris petiolo paulò longioribus in racemum terminalem dispositis, corollâ cylindraceo-ventricosâ villosâ: limbo regulari, glandulis 5 linearibus, staminibus inclusis.

This is a fine plant from Guatemala, sent to the Horticultural Society by Mr. Hartweg. It has a stout stem about two feet high, narrow thick drooping leaves from five to eight inches long, and rich crimson flowers an inch in length, and unusually thick. It is in the way of G. allagophylla, but much handsomer.

191. MORMŌDĒS *buccĭnātŏr.* Botanical Register, 1840. misc. no. 9.

Of this singular plant Messrs. Loddiges have obtained a variety from La Guayra, which, with all the form of the original, has the flowers dull orange spotted with brown. It is handsomer than the first sort, and looks at first sight something like M. aromaticum.

192. CENTROPŌGŌN *cordĭfŏlĭŭs.* Bentham Pl. Hartweg, p. 77. no. 539.

A greenhouse plant from Guatemala, where it was found by Mr. Hartweg. It has fine broad heart-shaped light green shining leaves, and deep rose-coloured flowers, resembling those of Centropogon (*Lobelia*) surinamensis. It has just flowered (Nov. 1841) in a cool stove in the garden of the Horticultural Society.

INDEX

TO THE

BOTANICAL REGISTER,

FOR THE YEARS 1838, 39, 40, AND 41.

PART I.—SPECIES DESCRIBED.

		pl.	misc.
Abies Kutrow	1841	..	24
Abutilon striatum	1839	..	53
——— ———	1841	..	16
——— vitifolium	1840	..	114
Acacia cultriformis	1838	..	62
——— cyanophylla	1839	..	64
——— cuneata	1839	..	74
——— platyptera	1841	..	10
——— biflora	1841	..	30
——— urophylla	1841	..	64
Acanthophippium striatum	1838	..	68
Achimenes rosea	1841	65	..
Acanthostachys strobilacea	1841	..	36
Aconitum ovatum	1840	..	118
Aerides Brookeii	1841	..	116
Æonium cruentum	1841	61	..
Æschynanthus maculatus	1841	28	..
——— grandiflorus	1841	49	..
Æsculus Ohiotensis	1838	51	..
Ætheria occulta	1838	..	179
Aganisia pulchella	1839	..	65
——— ———	1840	32	..
Agave saponaria	1838	..	141
——— ———	1839	55	..
Allium cœruleum	1840	51	..
Alnus jorullensis	1840	..	52
Alstrœmeria Ligtu	1839	13	..
Ammoniacum	1839	..	105
Ampelygonum chinense	1838	..	118
Amphicome arguta	1838	19	..
Amygdalus incana	1839	58	..
Anagallis alternifolia	1840	..	144
Angræcum armeniacum	1839	..	109
——— bilobum	1840	..	151
——— ———	1841	35	..
——— gladiifolium	1840	68	..
——— brevifolium	1840	68	..
——— ornithorhynchum	1840	68	..
——— polystachyum	1840	68	..
——— tenue	1840	68	..
Anigozanthus flavida	1838	37	..
——— ——— var. bicolor	1838	64	..
Aotus lanigera	1841	..	88
Aplotaxis albescens	1839	..	129
Aporum Leonis	1840	..	126
——— sinuatum	1841	..	3
——— cuspidatum	1841	..	7
Aquilegia glauca	1840	46	..
——— fragrans	1840	..	140
——— pubiflora	1840	..	141
Arbutus laurifolia	1839	67	..
Arctostaphylos nitida	1840	..	69
Argyreia festiva	1841	..	127
Arisæma macrospatha	1840	..	54
Armeria fasciculata	1841	21	17
Arpophyllum spicatum	1839	..	16
Arundina bambusæfolia	1841	..	5
Asafœtida	1839	..	106
Asagræa officinalis	1839	33	..
Aspasia epidendroides	1840	..	92
Asteracantha longifolia	1839	..	117
Asterotrichion sidoides	1841	..	35
Astragalus strobiliferus	1840	..	71
Azara integrifolia	1840	..	10
Babiana ringens	1838	..	19
Bæckea Camphorosmæ	1841	..	140
Banisteria tenuis	1838	..	131
Barkeria elegans	1840	..	57
Batatas betacea	1839	..	152
——— ———	1840	56	..
——— bonariensis	1838	..	99
Bauhinia corymbosa	1839	47	..
Begonia diversifolia	1840	..	44
——— punctata	1841	..	34
——— incana	1841	..	73
——— papillosa	1841	..	74
Berberis empetrifolia	1840	27	..
——— trifoliata	1841	..	149
——— tenuifolia	1838	..	121
——— coriaria	1841	46	..
Bessera elegans	1839	34	..
Betula Bhojpattra	1840	..	169
Bifrenaria longicornis	1838	..	177
Bignonia Tweediana	1840	45	..
Billardiera daphnoides	1840	..	38
Bletia havanensis	1838	..	35
——— Shepherdii	1838	..	73
——— secunda	1840	..	120
Bolbophyllum cupreum	1838	..	183
——— clandestinum	1841	..	166
——— flavidum	1840	..	195
——— imbricatum	1841	..	65
——— fuscum	1839	..	5
——— limbatum	1840	..	171
——— sordidum	1840	..	217

		pl.	misc.
Bolbophyllum umbellatum	1838	..	102
——— setigerum	1838	..	24
Boronia crenulata	1838	12	..
——— triphylla	1841	47	..
——— mollis	1841	47	..
——— anethifolia	1841	47	..
——— falcifolia	1841	47	..
——— dichotoma	1841	47	..
——— ovata	1841	47	..
Bossiæa disticha	1841	55	67
——— paucifolia	1841	..	108
Bouvardia splendens	1840	37	..
Brachycome iberidifolia	1840	..	148
——— ———	1841	9	..
Brasavola angustata	1838	..	67
——— Martiana	1839	5	..
——— glauca	1839	..	67
——— ———	1840	44	89
——— grandiflora	1839	..	14
——— venosa	1840	..	24
——— ———	1840	39	..
Brassia cochleata	1840	..	37
——— Laurenceana	1841	18	6
——— macrostachya	1838	..	31
——— verrucosa	1840	..	66
Bravoa geminiflora	1838	..	98
Bromelia discolor	1838	..	85
Bromheadia palustris	1841	..	184
Broughtonia aurea	1840	..	22
Brownæa grandiceps	1841	30	..
Bryobium pubescens	1838	..	145
Bulbine suavis	1838	..	78
Burlingtonia maculata	1839	44	.
——— rigida	1841	..	41
Calandrinia discolor	1839	4	..
Calanthe discolor	1840	55	..
——— ———	1838	..	32
——— furcata	1838	..	34
——— bicolor	1838	..	38
——— veratrifolia	1839	..	39
Calectasia cyanea	1841	..	13
Callistemon microstachyum	1838	7	..
Calostemma carneum	1840	26	..
——— luteum	1840	19	..
Calystegia sepium	1838	..	104
Carpesium pubescens	1838	..	123
Catasetum cornutum	1840	..	182
——— ———	1841	5	..
——— callosum	1840	..	183
——— ———	1841	5	..
——— deltoideum	1840	..	157
——— maculatum	1840	62	..
——— ———	1840	..	99
——— Milleri	1838	..	149
——— poriferum	1838	..	164
——— atratum	1838	63	114
——— proboscideum	1839	..	140
——— ———	1841	5	..
——— longifolium	1839	..	154
——— laminatum	1841	5	..
——— lanciferum	1841	5	..
——— discolor	1841	..	12
——— fuliginosum	1841	..	168
——— roseo-album	1840	..	135
——— spinosum	1840	..	136
Catasetum Russellianum	1840	..	19
——— saccatum	1840	..	179
——— Trulla	1840	..	176
——— ———	1841	34	..
Cattleya Aclandiæ	1840	48	..
——— bicolor	1838	..	148
——— Perrinii	1838	2	..
——— Mossiæ	1840	58	..
——— Skinneri	1840	..	83
——— superba	1839	..	47
Ceanothus pallidus	1840	20	..
Centaurea pulchra	1839	..	84
——— ———	1840	28	..
Centropogon cordifolius	1841	..	192
Cereus leucanthus	1840	13	..
Chænanthe Barkeri	1838	..	60
Cheiranthus ochroleucus	1840	..	29
Cheirostylis parvifolia	1839	..	20
Chorozema cordatum	1838	10	..
——— spectabile	1841	45	66
——— varium	1839	49	63
Chysis lævis	1840	..	130
——— bractescens	1840	..	131
——— ———	1841	23	..
Cirrhæa saccata	1836	..	121
Cirrhopetalum cornutum	1838	..	138
——— cæspitosum	1838	..	53
——— Macræi	1841	..	105
——— maculosum	1841	..	173
——— Thouarsii	1838	11	..
——— nutans	1839	..	118
——— Wallichii	1839	..	119
——— fimbriatum	1839	..	120
——— picturatum	1840	..	106
——— auratum	1840	..	107
——— vaginatum	1840	..	173
Citrus deliciosa	1841	..	44
Cleisostoma latifolium	1840	..	127
——— maculosum	1840	..	67
——— tridentatum	1838	..	46
——— roseum	1838	..	150
Clematis florida, var. bicolor	1838	25	..
——— lathyrifolia	1839	61	..
——— montana	1840	53	..
Cleome lutea	1840	..	117
——— ———	1841	67	..
Clethra mexicana	1840	..	51
Clerodendron fragrans	1838	41	..
——— splendens	1841	..	177
Clianthus carneus	1844	51	9
Clitanthus humilis	1839	..	141
Cobæa stipularis	1840	..	50
——— ———	1841	25	..
Codonopsis lurida	1839	..	126
Cœlogyne fimbriata	1838	..	172
——— prolifera	1838	..	75
——— Wallichiana	1838	..	167
——— ———	1840	24	..
——— ovalis	1838	..	171
——— Cumingii	1840	..	178
——— ———	1841	29	..
——— coronaria	1841	..	178
——— flaccida	1841	31	..
——— cristata	1841	57	54
——— elata	1839	..	151

		pl.	misc.
Cœlogyne oculata	1839	..	25
Colea floribunda	1841	19	..
Columnea Schiedeana	1841	60	..
Comparettia coccinea	1838	68	..
——— rosea	1840	..	186
Commelina orchioides	1838	..	96
Conostylis juncea	1839	..	73
Convolvulus floridus	1840	..	199
——— verrucipes	1841	..	45
——— scoparius	1841	43	152
Cornus grandis	1840	..	59
Coryanthes speciosa alba	1840	..	75
Corycium orobanchoides	1838	45	..
Cosmus scabiosoides	1838	15	..
Cotoneaster denticulata	1840	..	58
Cotyledon cristatum	1839	..	134
Crocus speciosus	1839	40	..
Crotalaria undulata	1840	..	32
Crucianella stylosa	1838	55	.
Cryptochilus sanguineus	1838	23	..
Cupressus thurifera	1839	..	101
Cyclamen neapolitanum	1838	49	..
Cyclosia maculata	1839	..	7
Cyclogyne canescens	1840	..	68
Cycnoches ventricosum	1840	..	98
——— maculatum	1840	..	8
Cymbidium iridifolium	1839	..	37
——— bicolor	1839	..	69
——— madidum	1840	..	6
——— pendulum	1840	25	..
——— pubescens	1840	..	177
——— ———	1841	38	..
——— virescens	1838	..	59
Cynoglossum cœlestinum	1839	36	..
——— glochidiatum	1839	..	128
——— ———	1841	15	..
——— grandiflorum	1838	..	127
——— longiflorum	1840	50	..
Cypella plumbea	1838	..	130
Cypripedium barbatum	1841	..	110
Cyrtochilum mystacinum	1838	..	38
——— ———	1839	62	..
——— stellatum	1839	..	54
——— graminifolium	1841	..	180
——— filipes	1841	59	72
——— maculatum	1838	44	39
——— ———	1840	..	86
——— ———	1841	..	87
——— ———	1841	..	14
Cyrtopodium Andersonii	1841	8	49
——— cristatum	1841	8	..
——— Wilmorei	1841	8	..
Cytisus Weldeni	1839	..	122
Dahlia glabrata	1840	29	..
Daphne australis	1838	56	..
Daubenya fulva	1839	53	..
Delphinium laxiflorum	1838	30	..
——— intermedium, var. sapphirinum	1838	52	..
——— intermedium, var. palmatifidum	1838	38	..
——— decorum	1840	64	..
Dendrobium aciculare	1840	..	188
——— calcaratum	1840	..	219
——— denudans	1838	..	156
——— candidum	1838	..	54

		pl.	misc.
Dendrobium discolor	1841	52	50
——— secundum	1841	..	169
——— formosum	1838	..	86
——— ———	1839	64	..
——— stuposum	1838	..	94
——— sulcatum	1838	65	..
——— bicameratum	1839	..	85*
——— Heyneanum	1839	..	41
——— macrophyllum	1839	..	46
——— Paxtoni	1839	..	56
——— aureum, pallidum	1839	20	..
——— crumenatum	1839	22	..
——— Jenkinsii	1839	37	..
——— linguæforme	1839	..	26
——— teretifolium	1839	..	29
——— tetragonum	1839	..	30
——— ———	1841	..	8
——— tortile	1839	..	31
——— pygmæum	1839	..	32
——— Cambridgeanum	1841	..	171
——— acerosum	1841	..	86
——— moschatum	1841	..	15
——— calamiforme	1841	..	26
——— excisum	1841	..	165
——— elongatum	1839	..	33
——— ———	1841	..	53
——— pugioniforme	1839	..	34
——— crassulæfolium	1839	..	35
——— complanatum	1839	..	36
——— herbaceum	1840	..	153
——— longicolle	1840	..	172
——— plicatile	1840	..	7
——— revolutum	1840	..	110
——— teres	1840	..	111
——— gemellum	1840	..	192
Dendrochilum filiforme	1840	..	113
——— glumaceum	1841	..	58
Deutzia corymbosa	1839	..	49
——— ———	1840	5	..
Dianthus Bisignani	1838	29	..
——— ferrugineus	1839	15	—
Dichæa ochracea	1839	..	71
Dicrypta discolor	1839	..	145
Dienia cordata	1838	..	134
Dinema paleaceum	1840	..	112
Diplolæna Dampieri	1841	64	..
Diplopeltis Hugelii	1839	69	70
Drymonia bicolor	1838	4	..
Dyckia altissima	1841	..	183
Echeandia terniflora	1839	..	144
Echeveria secunda	1838	..	112
——— ———	1840	57	..
——— lurida	1841	1	..
Echinacea Dicksoni	1838	27	..
Echinocactus Ottonis	1838	42	..
——— Eyriesii, var. glaucus	1838	31	..
——— Scopa	1839	24	..
Elisena longipetala	1838	..	79
Encyclia note upon	1839	..	13
Entelea palmata	1838	..	126
Epacris impressa, var.	1839	19	..
Epidendrum pictum	1838	..	43
——— pachyanthum	1838	..	42
——— papillosum	1838	..	8

		pl.	misc.
Epidendrum Pastoris	1838	..	3
——— Schomburgkii	1838	53	16
——— smaragdinum	1838	..	44
——— calocheilum	1841	..	181
——— latilabrum	1841	..	163
——— bisetum	1841	..	148
——— Grahami	1841	..	145
——— tripunctatum	1841	..	143
——— articulatum	1841	..	127
——— pterocarpum	1841	..	128
——— radiatum	1841	..	123
——— raniferum	1841	..	122
——— virgatum	1841	..	189
——— gladiatum	1841	..	20
——— viviparum	1841	..	27
——— miserum	1841	..	62
——— leiobulbon	1841	..	63
——— microphyllum	1841	..	71
——— hastatum	1841	..	90
——— aciculare	1841	..	98
——— lacertinum	1841	..	109
——— phœniceum	1841	..	120
——— selligerum	1838	..	66
——— tibicinis	1838	..	12
——— tessellatum	1838	..	9
——— tridactylum	1838	..	81
——— varicosum	1838	..	37
——— vesicatum	1838	..	89
——— aurantiacum	1838	..	11
——— ———	1840	..	82
——— aspersum	1838	..	36
——— altissimum	1838	..	61
——— Boothianum	1838	..	7
——— cucullatum	1838	..	47
——— chloranthum	1838	..	28
——— cauliflorum	1838	..	82
——— calamarium	1838	..	163
——— dichotomum	1838	..	146
——— equitans	1838	..	76
——— fucatum	1838	..	17
——— ionosmum	1838	..	87
——— longicolle	1838	..	49
——— lacerum	1838	..	18
——— lividum	1838	..	91
——— ochraceum	1838	26	15
——— variegatum	1839	11	..
——— glumaceum	1839	..	50
——— ———	1840	6	..
——— Candollei	1839	..	77
——— inversum	1839	..	135
——— uniflorum	1839	..	13
——— Skinneri	1840	..	81
——— incumbens	1840	..	84
——— macrochilum	1840	..	85
——— Stamfordianum	1840	..	88
——— rhizophorum	1840	..	91
——— ———	1838	..	10
——— aromaticum	1840	..	93
——— bractescens	1840	..	122
——— densiflorum	1840	..	134
——— crispatum	1840	..	35
——— lancifolium	1840	..	152
——— falcatum	1840	..	20
——— Parkinsonianum	1840	..	20
——— glaucum	1840	..	56

		pl.	misc.
Epidendrum vitellinum	1840	..	35
——— stenopetalum	1840	..	49
——— Trinitatis	1840	..	128
——— viscidum	1840	..	190
Epimedium violaceum	1840	43	..
Epiphora pubescens	1840	..	103
Eria clavicaulis	1840	..	220
——— bipunctata	1841	..	179
——— ferruginea	1839	35	..
——— bractescens	1841	..	46
——— longilabris	1841	..	69
——— armeniaca	1841	42	70
——— pulchella	1841	..	106
——— polyura	1841	..	114
——— convallarioides	1841	62	121
——— nutans	1840	..	196
——— planicaulis	1840	..	4
——— pumila	1838	..	147
——— velutina	1840	..	209
Erica chloroloma	1838	17	..
Erigeron squarrosum	1841	..	92
Erysimum Perofskianum	1839	..	79
Eucalyptus calophylla	1841	..	157
Eulophia squalida	1841	..	164
Euphorbia rigida	1838	43	..
——— veneta	1838	6	..
Eurybia glutinosa	1839	..	112
——— chrysotricha	1841	..	47
Euthales macrophylla	1840	..	119
——— ———	1841	3	..
Eysenhardtia amorphoides	1839	..	55
Fabiana imbricata	1839	59	..
Fernandezia lunifera	1839	..	147
Fuchsia fulgens	1838	1	..
——— cylindracea	1838	66	97
——— cordifolia	1841	70	117
——— radicans	1841	66	167
——— corymbiflora	1840	70	202
——— Standish's	1840	2	..
Funkia Sieboldi	1839	50	..
Galbanum	1839	..	107
Galeandra Baueri	1840	49	..
Gardoquia betonicoides	1838	..	159
Garrya laurifolia	1840	..	53
Genista bracteolata	1840	23	..
Geranium rubifolium	1840	67	..
——— erianthum	1841	..	91
——— tuberosum	1839	10	..
Gesneria reflexa	1840	..	39
——— longifolia	1841	..	190
——— discolor	1841	63	96
Glaucium rubrum	1839	..	78
Godetia albescens	1841	..	131
——— grandiflora	1841	..	132
Gompholobium versicolor	1839	43	62
Gonatanthus sarmentosus	1841	..	83
Gongora fulva	1839	51	..
——— bufonia	1841	2	..
——— vitellina	1841	..	4
——— maculata	1841	..	101
——— nigrita	1839	..	86
Goodyera rubicunda	1839	..	92
Govenia Gardneri	1839	..	51
——— lagenophora	1839	..	66
——— liliacea	1838	13	..

		pl.	misc.
Grammatophyllum multiflorum	1838	..	80
———————	1839	65	..
Grevillea Thielemanniana	1839	..	72
Grobya galeata	1840	..	197
Guaiacum officinale	1839	9	..
Gunnia picta	1838	..	77
Hæmanthus magnificus	1841	..	153
Hakea ruscifolia	1841	..	158
Hardenbergia digitata	1840	60	142
Hartwegia purpurea	1840	..	96
Heimia salicifolia	1841	60	..
Helichrysum scorpioides	1838	..	84
Helleborus lividus	1838	54	..
——— orientalis	1841	..	112
——— olympicus	1841	..	113
Hemiandra emarginata	1841	..	156
Heteropteris undulata	1841	..	48
Hexopia crucigera	1840	..	90
Hibbertia perfoliata	1841	..	94
Hibiscus Cameroni	1840	..	31
——— Wrayæ	1840	69	149
Higginsia mexicana	1841	..	137
Hoitzia mexicana	1838	..	21
Hormidium	1839	..	13
Hoteia japonica	1839	..	133
Houlletia vittata	1841	69	100
Hovea crispa	1839	..	19
——— pungens	1839	..	28
——— Manglesii	1838	62	..
Hoya coriacea	1839	18	..
——— ———	1840	..	1
Huntleya Meleagris	1838	..	20
——— ———	1839	14	..
——— violacea	1839	..	17
Hydrotænia Meleagris	1838	..	128
Hymenocallis Harrisiana	1840	..	63
——— panamensis	1841	..	146
——— rotata	1840	..	55
Impatiens candida	1840	..	204
——— ———	1841	20	..
——— rosea	1841	27	22
——— glanduligera	1840	22	..
——— macrochila	1840	8	..
——— tricornis	1840	9	..
Inga Harrisii	1839	41	..
Ionopsis teres	1838	..	181
Ipomœa ficifolia	1840	..	221
——— ———	1841	12	..
——— longifolia	1839	..	124
——— ———	1840	21	..
——— batatoides	1841	36	23
——— pendula	1840	..	201
——— Purga	1839	..	136
——— tyrianthina	1838	..	162
——— Schiedeana	1838	..	22
Iris deflexa	1840	..	42
——— ———	1840	..	62
——— fragrans	1840	1	..
Ismene deflexa	1839	..	142
——— virescens	1841	12	..
Isochilus lividum	1839	..	45
——— grandiflorum	1841	1	..
——— graminifolium	1841	1	..
Isotropis striata	1839	..	61

		pl.	misc.
Juniperus tetragona	1839	..	102
——— flaccida	1839	..	103
——— mexicana	1839	..	104
——— squamosa	1839	..	18
Lælia furfuracea	1839	26	..
——— autumnalis	1839	27	..
——— albida	1839	54	4
——— flava	1839	..	143
——— majalis	1839	..	42
——— caulescens	1841	1	..
——— acuminata	1841	24	42
——— superbiens	1840	..	87
——— rubescens	1840	41	25
Lalage hoveæfolia	1841	..	75
Lathyrus Armitageanus	1840	..	14
Lavatera maritima	1838	..	140
Lemonia spectabilis	1840	59	..
Leptodermis lanceolata	1839	..	131
Leycesteria formosa	1839	2	..
Lilium Thunbergianum	1839	38	..
Linaria delphinoides	1840	..	15
——— glandulifera	1841	..	51
——— venosa	1841	..	151
Lindenia rivalis	1841	..	130
Liparis pendula	1838	..	180
——— spathulata	1840	..	189
Lissanthe stellata	1840	..	2
——— ———	1840	..	13
——— verticillata	1840	..	26
Lissochilus parviflorus	1838	..	14
Loasa lateritia	1838	22	..
Lobelia discolor	1840	..	211
——— pyramidalis	1841	..	170
——— subnuda	1840	..	211
——— fenestralis	1838	47	..
——— multiflora	1840	..	17
Lopezia lineata	1840	40	60
Luisia alpina	1838	..	101
Lupinus arboreus	1838	32	..
——— Hartwegii	1839	31	..
——— Barkeri	1839	56	..
——— bilineatus (note)	1839	56	..
——— mexicanus (note)	1839	56	..
——— leptocarpus	1840	38	..
Lysimachia lobelioides	1841	..	150
Macradenia mutica	1839	..	22
Malachadenia clavata	1839	..	110
Malaxis Parthoni	1840	..	214
Malva lucida	1839	..	130
——— mauritiana	1839	..	82
Mandevilla suaveolens	1840	7	..
Manglesia glabrata	1840	..	27
Marianthus cœruleopunctatus	1841	..	15
Marlea begonifolia	1838	61	..
Martynia fragrans	1840	..	206
——— ———	1841	6	..
Masdevallia infracta	1838	..	64
Matthiola odoratissima	1839	25	..
——— maderensis	1841	..	97
Maxillaria Colleyi	1838	..	161
——— Rollissonii	1838	40	..
——— vitellina	1838	..	116
——— ———	1839	12	..
——— porrecta	1838	..	173
——— macrophylla	1838	..	174

		pl.	misc.
Maxillaria macrophylla	1840	..	191
——— costata	1838	..	175
——— variabilis	1838	..	26
——— Brockelhurstiana	1841	..	28
——— candida	1841	..	59
——— Harrisoniæ	1841	..	168
——— placanthera	1841	..	103
——— jugosa	1841	..	104
——— barbata	1841	..	141
——— purpurascens	1841	..	142
——— madida	1838	..	74
——— Boothiana	1838	..	95
——— tenuifolia	1839	8	..
——— stapelioides	1839	17	..
——— xanthina (note)	1839	17	..
——— foveata	1839	..	2
——— acutifolia	1839	..	148
——— lentiginosa	1839	..	93
——— aureofulva	1840	..	43
——— stenopetala	1840	..	43
——— cucullata	1840	12	..
——— rhombea	1840	12	..
——— Macleei	1840	..	155
——— Skinneri	1840	..	101
——— ———	1840	..	145
Medicago clypeata	1839	..	90
Medinilla erythrophylla	1838	..	158
Megaclinium oxypterum	1839	..	10
——— Bufo	1841	..	82
Microstylis excavata	1838	..	93
——— histionantha	1840	..	214
——— caulescens	1841	1	..
Miltonia candida	1838	..	29
Mimosa marginata	1838	..	152
Mirbelia speciosa	1841	58	..
Morina longifolia	1840	36	..
Mormodes buccinator	1840	..	9
——— buccinator, var.	1841	..	191
——— pardinum	1838	..	176
——— ———	1839	..	7
——— lineatum	1841	..	107
——— aromaticum	1841	..	162
Morna nivea	1838	9	..
Morrenia odorata	1838	..	129
Mucuna pruriens	1838	18	..
Mycaranthes obliqua	1840	..	184
Nemaconia gracilifolia	1839	..	15
Nemesia floribunda	1838	39	..
Nepeta salviæfolia	1839	..	123
Nicotiana rotundifolia	1838	..	110
Niphea oblonga	1841	..	172
Notylia punctata	1838	..	166
——— aromatica	1841	..	77
——— incurva	1838	..	167
——— Barkeri	1838	..	168
——— tenuis	1838	..	169
——— micrantha	1838	..	170
Oberonia cylindrica	1840	..	23
——— recurva	1839	..	8
——— Wightiana	1839	..	9
Octomeria gracilis	1838	..	55
——— diaphana	1839	..	146
——— tridentata	1839	..	43
Odontoglossum Bictoniense	1840	66	..
——— stellatum	1841	..	25
Odontoglossum Ehrenbergii	1841	..	85
——— pulchellum	1841	48	.
——— Clowesii	1839	..	153
——— cordatum	1838	..	90
——— grande	1840	..	94
——— maculatum	1840	30	..
——— Rossii	1839	48	..
Œnothera fruticosa indica	1841	11	..
Olinia capensis	1840	..	212
——— acuminata	1841	..	135
——— cymosa	1841	..	136
Oncidium tetrapetalum	1838	..	56
——— confragosum	1838	..	92
——— pulvinatum	1838	..	115
——— ———	1839	42	..
——— hians	1838	..	124
——— raniferum	1838	48	..
——— luridum guttatum	1839	16	..
——— trulliferum	1839	57	..
——— Forbesii	1839	..	149
——— excavatum	1839	..	150
——— sanguineum	1839	..	68
——— unicorne	1839	..	76
——— carinatum	1840	..	45
——— intermedium	1840	..	46
——— unicornutum	1840	..	47
——— Carthaginense	1840	..	215
——— pelicanum	1840	..	216
——— macrantherum	1841	..	33
——— Wrayæ	1841	..	57
——— monoceras	1841	..	160
——— Barkeri	1841	..	174
——— nebulosum	1841	..	175
——— Huntianum	1840	..	137
——— pachyphyllum	1840	..	138
——— Insleayi	1840	..	21
——— incurvum	1840	..	174
——— leucochilum	1840	..	79
——— ornithorhynchum	1840	10	95
——— ampliatum	1840	..	97
——— microchilum	1840	..	193
——— Wentworthianum	1840	..	194
——— pallidum	1840	..	108
——— ramosum	1840	..	154
——— stramineum	1840	14	..
——— ———	1838	..	63
Ophelia purpurascens	1840	..	158
Opoidia galbanifera	1839	..	107
Ornithogalum geminiflorum	1838	..	100
——— divaricatum	1841	..	111
——— montanum	1838	28	..
Oxalis Darvalliana	1840	..	11
——— Ottonis	1840	..	213
——— fruticosa	1841	41	..
Oxyanthus versicolor	1840	..	150
Oxylobium capitatum	1841	..	80
Pæonia (Onæpia) Brownii	1839	30	..
Panætia fulva	1838	..	83
Papaver amoenum	1839	..	80
Passiflora hispidula	1840	..	3
——— ———	1840	..	16
——— onychina	1838	21	1
——— verrucifera	1840	..	105
——— ———	1840	52	..
Patersonia sapphirina	1839	60	..

SPECIES DESCRIBED.

		pl.	misc.
Paxtonia rosea . . .	1838	60	113
Pedicularis pyramidata .	1841	..	155
Pentlandia miniata . .	1839	68	..
Pentstemon barbatum carneum	1839	21	..
———— crassifolium .	1838	16	..
———— gentianoides .	1838	3	..
Peristeria guttata . .	1840	..	33
Peristylus goodyeroides .	1840	..	187
Fernettya angustifolia .	1840	63	..
Pesomeria tetragona . .	1838	..	6
Phacelia fimbriata . .	1841	..	126
Phaius grandifolius . .	1839	..	40
——— bicolor . . .	1839	..	91
——— Wallichii . .	1839	..	58
——— albus . . .	1838	33	..
Phalænopsis amabilis . .	1838	34	..
Pharbitis Learii . .	1841	56	..
Philadelphus hirsutus .	1838	14	..
———— Gordonianus	1838	..	23
———— ————	1839	32	..
———— triflorus .	1838	..	51
———— laxus . .	1839	39	..
———— mexicanus .	1840	..	70
———— ———— .	1841	..	118
Phlomis simplex . .	1841	..	102
Pholidota articulata . .	1839	..	57
———— undulata . .	1841	..	19
———— conchoidea .	1840	..	198
Phycella biflora . .	1838	..	72
Physinga prostrata . .	1838	..	45
Physosiphon carinatus .	1838	..	132
Picris asperrima . .	1838	..	108
——— barbarorum . .	1838	..	107
Pimelia incana . . .	1838	24	..
——— crinita . . .	1838	..	109
——— spectabilis . .	1841	33	18
——— prostrata . .	1839	..	81
Pinus oocarpa . . .	1839	..	23
——— Llaveana . . .	1839	..	24
——— Hartwegii . .	1839	..	95
——— Devoniana . .	1839	..	96
——— Russelliana . .	1839	..	97
——— macrophylla . .	1839	..	98
——— pseudostrobus . .	1839	..	99
——— apulcensis . .	1839	..	100
——— filifolia . . .	1840	..	132
——— Coulteri . . .	1840	..	133
Pisonia Olfersiana . .	1841	..	34
Placea ornatá . . .	1841	50	..
Plagianthus Lampenii .	1838	..	25
Pleurothallis circumplexa .	1838	..	27
———— marginata .	1838	..	70
———— aphthosa .	1838	..	71
———— vittata . .	1838	..	133
———— ophiocephala	1838	..	48
———— stenopetala .	1838	..	182
———— muscoidea .	1838	..	165
———— pectinata .	1839	..	1
———— recurva .	1841	..	1
———— luteola . .	1841	..	2
———— picta . .	1841	..	182
———— gelida . .	1841	..	186
———— sicaria . .	1841	..	187
———— fragilis . .	1841	..	188

		pl	misc.
Pleurothallis peduncularis .	1841	..	64
———— breviflora .	1841	..	125
———— strupifolia .	1839	..	3
———— bicarinata .	1839	..	11
———— scabripes .	1839	..	155
———— pachyglossa .	1840	..	146
———— seriata . .	1840	..	175
———— villosa . .	1840	..	40
———— ciliata . .	1840	..	41
Podolepis contorta . .	1838	..	120
Podolobium berberifolium .	1841	..	89
Pogonia plicata . .	1841	..	129
Polemonium cœruleum grandiflorum . .	1840	..	76
Polygonum amplexicaule .	1838	..	117
———— ———— .	1839	46	..
———— molle . .	1841	..	66
Polystachya zeylanica .	1838	..	144
———— ramulosa .	1838	..	142
———— luteola . .	1838	..	143
———— reflexa . .	1841	..	43
———— affinis . .	1839	..	44
———— bracteosa .	1840	..	102
———— cerea , .	1840	..	208
Ponera graminifolia . .	1839	..	15
Portulaca Thellusonii .	1839	..	114
———— ———— . .	1840	31	..
Posoqueria versicolor .	1841	26	..
Potentilla insignis . .	1841	37	..
Pothos podophyllus . .	1841	..	176
Pronaya elegans . .	1840	..	200
Protea longiflora . .	1841	..	136
Psoralea cinerea . .	1838	..	106
Pultenæa obcordata . .	1838	..	57
———— brachytropis .	1841	..	76
Puya Altensteinii . .	1840	..	210
——— cœrulea . . .	1840	11	..
——— heterophylla . .	1840	71	..
Quekettia microscopica .	1839	..	6
Quercus auctifolia . .	1840	..	160
——— reticulata . .	1840	..	161
——— crassipes . .	1840	..	162
——— spicata . .	1840	..	163
——— mexicana . .	1840	..	164
——— glaucescens . .	1840	..	165
——— sideroxyla . .	1840	..	166
——— lancifolia . .	1840	..	167
——— petiolaris . .	1840	..	168
——— mannifera . .	1840	..	72
——— regia . . .	1840	..	73
——— Brantii . .	1840	..	74
Rhodorhiza . . .	1841	..	152
Ribes Menziesii . .	1838	..	52
Rigidella flammea . .	1840	16	64
———— immaculata .	1841	68	133
Rivea tiliæfolia . .	1841	..	29
Rodriguezia crispa . .	1840	54	..
———— ———— . .	1839	..	139
———— laxiflora .	1839	..	138
———— maculata .	1840	..	218
Roepera aurantiaca . .	1838	..	105
Roscöea purpurea . .	1840	61	..
———— lutea	1841	..	159
Saccolabium gemmatum .	1838	..	88
———— densiflorum .	1838	..	103

SPECIES DESCRIBED.

		pl.	misc.
Saccolabium Blumei	1841	. .	115
——— calceolare	1838	. .	139
——— bifidum	1838	. .	5
——— compressum	1840	. .	5
——— micranthum	1839	. .	52
Salvia Moorcroftii	1839	. .	127
——— patens	1839	23	48
——— excelsa	1841	. .	185
——— tubiformis	1841	44	40
——— confertiflora	1839	29	. .
——— canescens	1838	36	. .
——— hians	1840	. .	115
——— ———	1841	39	. .
——— prunelloides	1840	. .	207
——— Regla	1840	. .	205
——— ———	1841	14	. .
Saponaria perfoliata	1839	. .	83
Sarcanthus pallidus	1840	. .	185
——— oxyphyllus	1840	. .	123
Sarcochilus olivaceus	1839	. .	27
——— parviflorus	1838	. .	50
——— unguiculatus	1840	. .	143
Satyrium papillosum	1838	. .	154
——— carneum	1838	. .	155
——— candidum	1838	. .	153
——— pustulatum	1840	18	. .
Scaphyglottis reflexa	1839	. .	21
——— stellata	1839	. .	60
Schizonotus tomentosus	1840	. .	156
Schomburgkia marginata	1839	. .	12
——— tibicinis	1841	. .	119
Schubertia graveolens	1838	. .	2
Schweiggeria pauciflora	1841	40	. .
Scilla pratensis	1839	63	. .
Scutellaria splendens	1841	. .	139
Sedum miserum	1838	. .	122
——— multicaule	1840	. .	124
Senecio populifolius, lacteus	1839	45	. .
——— cruentus	1839	7	. .
——— odoratus	1839	. .	111
Severinia brevifolia	1841	. .	52
Sisyrinchium junceum	1840	. .	12
——— majale	1821	. .	37
Sobralia sessilis	1841	17	11
Solanum betaceum	1840	. .	65
——— ———	1840	. .	61
——— candidum	1839	. .	125
——— macrantherum	1840	. .	181
——— ———	1841	7	. .
——— Rossii	1840	. .	34
——— uncinellum	1840	15	. .
——— vernicatum	1838	. .	137
Sollya linearis	1839	. .	132
——— ———	1840	3	. .
Sophronitis violacea	1840	. .	18
Sowerbæa laxiflora	1841	10	. .
Specklinia orbicularis	1838	. .	41
——— ciliaris	1838	. .	40
——— obovata	1839	. .	137
Spiræa barbata	1838	. .	65
——— Kamschatica	1841	4	. .
——— lanceolata	1841	. .	93
——— cuneifolia	1839	. .	87
——— vacciniifolia	1839	. .	88
——— ———	1840	17	. .
Spiræa rotundifolia	1840	. .	159
——— laxiflora	1839	. .	89
——— fissa	1840	. .	170
Spiranthes diuretica	1838	. .	119
——— Lindleyana	1841	. .	38
Spironema fragrans	1840	47	48
Sprekelia cybister	1840	33	. .
——— glauca	1840	. .	104
——— ———	1841	16	. .
Stanhopea quadricornis	1838	5	. .
——— Lindleyi	1838	. .	4
——— aurea	1841	. .	31
——— tigrina	1839	1	. .
——— oculata	1839	. .	113
——— ———	1840	. .	80
——— graveolens	1840	. .	125
——— maculosa	1840	. .	28
——— Martiana	1840	. .	109
——— ———	1841	. .	147
——— Wardii	1840	. .	147
Statice arborea	1839	6	. .
——— pectinata	1840	65	. .
——— monopetala	1841	54	. .
Stelis tristyla	1838	. .	69
Stenia pallida	1838	20	. .
Stenochilus longifolius	1839	. .	115
——— incanus	1839	. .	116
Stevia fascicularis	1838	59	. .
Stigmaphyllon ciliatum	1841	. .	121
Strobilanthes scabra	1841	32	. .
Stylidium proliferum	1841	. .	78
——— pilosum	1841	. .	79
——— Brunonianum	1841	. .	95
Tabernæmontana dichotoma	1841	53	. .
Tanacetum longifolium	1840	. .	78
Thalictrum cultratum	1840	. .	77
Thomasia canescens	1840	. .	203
Thysanotus intricatus	1838	. .	111
——— ——— ———	1840	4	. .
——— tenuis	1838	50	. .
——— proliferus	1838	8	. .
——— isantherus	1839	. .	75
Tigridia violacea	1841	. .	134
Tradescantia iridescens	1840	34	160
——— tumida	1840	42	. .
Trichinium alopecuroideum	1839	28	. .
——— Manglesii (note)	1839	28	. .
——— Stirlingii (note)	1839	28	. .
Trichocentron iridifolium	1838	. .	178
Trifolium involucratum	1840	. .	116
Trigonidium acuminatum	1838	. .	136
——— Egertonianum	1838	. .	135
——— ———	1840	. .	100
——— ringens	1840	. .	121
——— tenue	1839	. .	59
Triptilion spinosum	1840	. .	129
——— ———	1841	22	. .
Triteleia aurea	1841	. .	161
Tritonia fucata	1838	35	. .
Trymalium odoratissimum	1838	. .	30
Tulipa Gesneriana	1838	46	. .
——— maleolens	1839	66	. .
Urceolina pendula	1838	. .	151
Valeriana Napus	1840	. .	180
Vanilla bicolor	1838	. .	58

		pl.	misc.
Vanda congesta	1839		94
—— violacea	1841		32
—— lamellata	1838		125
Veronica diosmæfolia	1840		30
—— formosa	1839		85
Victoria regia	1833		13
Weinmannia venosa	1840		36
Xerotes longifolia	1839	3	
Zichya tricolor	1839	52	
—— angustifolia (note)	1839	52	
—— villosa	1841		81
Zigadenus glaucus	1838	67	
Zygopetalum africanum	1840		139

PART. II.—GENERAL INTELLIGENCE.

Agardh, Recensio generis Pteridis, noticed, 1840, *misc. p.* 13.
Balsamineæ, their affinities and structure, 1840, *t.* 8.
Bauer, his sale, 1841, *misc. p.* 85.
Beet root, observations on, by M. Decaisne, 1839, *misc. p.* 28.
Brown, Robt., a Copley medal awarded to him, 1840, *misc. p.* 3.
Campanula, its collecting hairs, 1840, *misc. p.* 54.
Cape of Good Hope, notes on its vegetation, 1839, *misc. p.* 52.
Circulation of the latex in plants, 1839, *misc. p.* 48.
Clestines in plants, 1840, *misc. p.* 13.
Cordage plants, some account of, 1839, *misc. p.* 5.
Cunningham, Allan, his death, 1840, *misc. p.* 1.
Endlicher's Genera Plantarum, 1839, *misc. p.* 40.
———— Genera Plantarum, noticed, 1840, *misc. p.* 31.
———— theory of vegetable fertilization, 1839, *misc. p.* 4.
———— Enchiridion Botanicum, 1841, *misc. p.* 85.
Extracarpellary attachment of seeds, 1841, *misc. p.* 25.
Flora de Filipinas, Blanco's, 1839, *misc. p.* 75.
Frankincense tree of Sierra Leone, 1839, *misc. p.* 30.
Frozen Potatoes, 1839, *misc. p.* 12.
Gentianaceæ, Grisebach's Monograph of, 1839, *misc. p.* 57.
Glycine sinensis, 1840, *misc. p.* 41.
Guatemala Orchidaceæ, 1840, *misc. p.* 43.
Gum, its motion in plants, 1840, *misc p.* 14.
Hair-like roots of Cotyledon cristatum, 1839, *misc. p.* 84.
Horse-chesnuts, poisonous, 1839, *misc. p.* 23.
Horticultural Society's Garden, 1839, *misc. p.* 17.
Hymenocallis and Pancratium, the distinction between, 1840, *misc. p.* 12.
Koordistan oaks, 1841, *misc. p.* 24.
Link, Klotzsch, and Otto, Icones plantarum, 1840, *misc. p.* 87.
Leptotes bicolor, its fruit aromatic, 1840, *misc. p.* 14.
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Myrtle, derivation of the name, 1839, *misc. p.* 28.
Oaks of Koordistan, 1840, *misc. p.* 39.
Orchidaceæ of Brazil, their habits, 1839, *misc. p.* 42, 21.
———— of Guatemala, 1840, *misc. p.* 43.
Pancratium and Hymenocallis, the distinction between, 1840, *misc. p.* 12.
Perrine on acclimatising tropical plants in the United States, 1839, *misc p.* 5.
Physostegia virginiana, its catalepsy explained, 1840, *misc. p.* 31.
Pinetum Woburnense, 1839, *misc. p.* 23.
Pisonai tree, 1839, *misc. p.* 18.
Pollen covered with starch, 1839, *misc. p.* 74.
Primary distribution of the Vegetable Kingdom, 1839, *misc. p.* 76.
Proceedings of the Royal Asiatic Society, 1839, *misc. p.* 24.
Royle's Illustrations of the Botany, &c. of the Himalayas, 1839, *misc. p.* 26.
Salep roots, their anatomy, 1841, *misc. p.* 16.
Schauer, Chamælaucieæ, 1841, *misc. p.* 88.
Seeds, extracarpellary attachment, 1841, *misc. p.* 25.
Siebold's Flora Japonica, noticed, 1840, *misc. p.* 4.
Starch on the outside of pollen grains, 1839, *misc. p.* 74.
Starch, new view concerning, 1841, *misc. p.* 48.
Tasmannian plants, 1840, *misc. p.* 16.
Torrey and Gray's Flora of North America, 1839, *misc. p.* 42. 2.
———————— 1840, *misc. p.* 79.
———————— 1841, *misc. p.* 74.
Tragacanth, source of the drug, 1840, *misc. p.* 38.
Van Diemen's Land plants, 1840, *misc. p.* 16.
Vanilla, first produced in England, 1840, *misc. p.* 66.
Victoria regia, note upon, 1840, *misc. p.* 62.
Wight's Illustrations of Indian Botany, 1839, *misc. p.* 29.
Wistaria sinensis, 1840, *misc. p.* 41.

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833
58/a